Digitized by the Internet Archive
in 2014

https://archive.org/details/businessweek199004newy

For Reference
Do Not Take
From the Library

Every person who maliciously cuts, defaces, breaks or injures any book, map, chart, picture, engraving, statue, coin, model, apparatus, or other work of literature, art, mechanics or object of curiosity, deposited in any public library, gallery, museum or collection is guilty of a misdemeanor.

Penal Code of California
1915, Section 623

NESS WEEK
July 2

▶ THE WORLD'S TOP 100 BANKS ▶ NEW YORK'S REAL ESTATE WOES

HOT STOCK MARKET
PAGE 30

BURLINGAME PUBLIC LIBRARY
3 9042 02350934 9

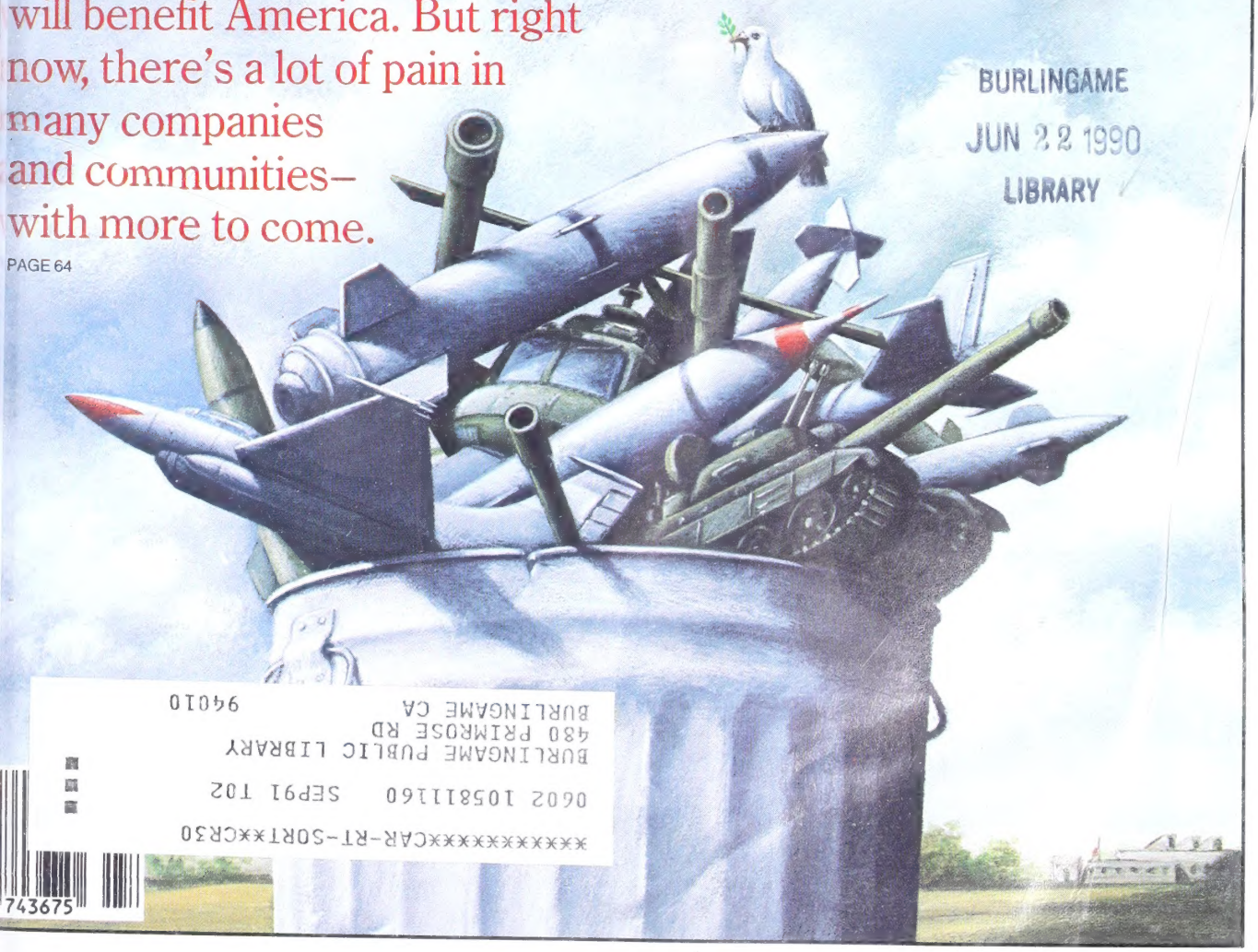
BusinessWeek

JULY 2, 1990 | A McGRAW-HILL PUBLICATION | $2.00

WHO PAYS FOR PEACE?

A shrinking defense budget will benefit America. But right now, there's a lot of pain in many companies and communities—with more to come.

PAGE 64



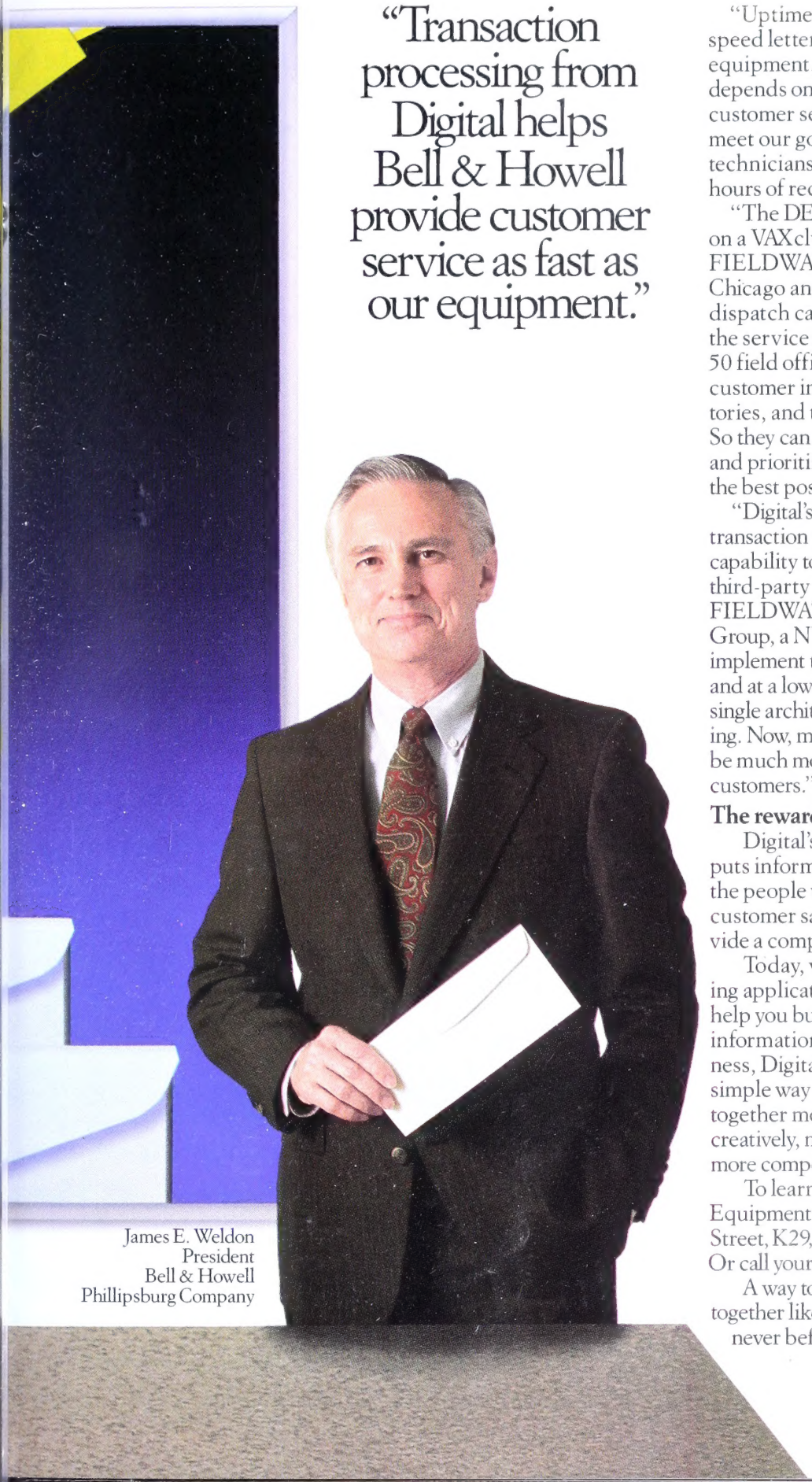
BURLINGAME
JUN 22 1990
LIBRARY

**********CAR-RT-SORT**CR30
0602 10581116O SEP91 T02
BURLINGAME PUBLIC LIBRARY
480 PRIMROSE RD
BURLINGAME CA 94010

743675

© Digital Equipment Corporation, 1990. The DIGITAL Logo, VAXcluster, DECtp, and Digital has it now are trademarks of Digital Equipment Corporation. *FIELDWATCH is a trademark of The DATA Group Corporation. The DATA Group is a NYNEX company. **NYNEX is a registered trademark of NYNEX Corporation.

"Transaction processing from Digital helps Bell & Howell provide customer service as fast as our equipment."



James E. Weldon
President
Bell & Howell
Phillipsburg Company

"Uptime is critical for our high-speed letter insertion and sorting equipment. So our reputation depends on providing the best customer service. Digital helps us meet our goal of having one of our technicians on-site within three hours of receiving a service call.

"The DECtp™ application resides on a VAXcluster™ system running FIELDWATCH* software in Chicago and handles 30,000 service dispatch calls each week. It gives the service managers in each of our 50 field offices immediate access to customer information, parts inventories, and technician availability. So they can quickly allocate resources and prioritize responses to provide the best possible service.

"Digital's unique knowledge of transaction processing and their capability to partner with leading third-party software solutions like FIELDWATCH from The DATA Group, a NYNEX** company, let us implement the system much faster and at a lower cost. And Digital's single architecture simplifies training. Now, more than ever, we can be much more responsive to our customers."

The rewards of working together.

Digital's transaction processing puts information into the hands of the people who need it, to improve customer satisfaction and help provide a competitive advantage.

Today, with transaction processing applications and expertise to help you build systems for sharing information throughout your business, Digital gives you an elegantly simple way for your people to work together more productively, more creatively, more efficiently, more competitively.

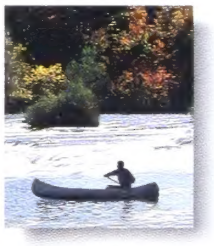
To learn more, write to Digital Equipment Corporation, 129 Parker Street, K29, Maynard, MA 01754-2198. Or call your local Digital sales office.

A way to work together like never before.

Digital has it now.

In the foreign exchange business, as in life it helps to look at the bigger picture.

Foreign exchange traders put an incredible premium on speed. Zoom! Th order comes up. Wham! It's processed. Zip! On to the next one. It's as if the entir industry had decided to binge on espresso.



At Continental Bank, we recognize the importance of expediting your trade. But we also believe in stepping back, if only for a moment, and evaluating its overall appropriateness.

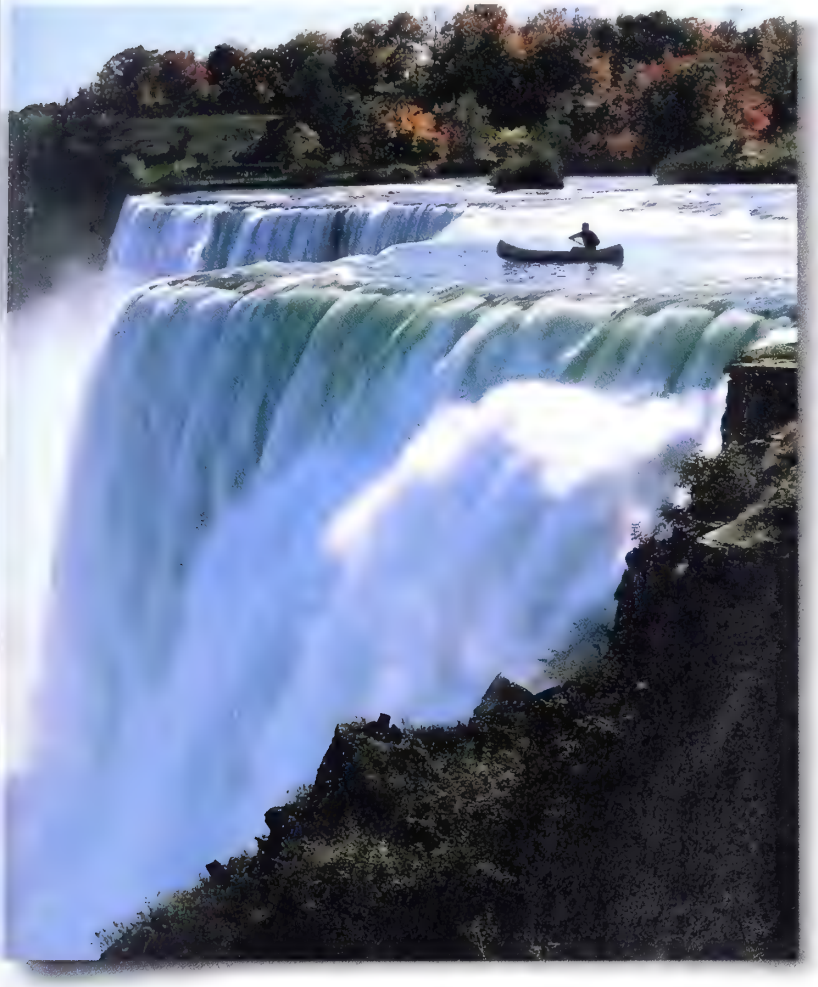
Oh sure, we could be missing out on an extra transaction or two. But revolutionary as it may sound, we contend that a foreign exchange expert shoulc function as more than a glorified order-taker. We're not "yes" men, after all. We're more what you might call "yes, that's an interesting possibility but let's first figure

© 1990 Continental Bank N.A. 231 South LaSalle Street, Chicago, Illinois 60697

ut whether it makes sense in terms of the bigger picture" men.

When we examine a specific trade, for example, we always approach it ·om the larger perspective. Does it make good strategic sense? Is it in synch with our long-term objectives? Does it coincide with economic and political trends?

They're basic questions, we admit. But at most banks, strange as it may seem, they're basically overlooked.



It comes down to this: at Continental, we always look after our clients' interests first. And for very selfish reasons. After all, the more we can keep you from making the wrong trades today, the more you'll be asking us to make the right ones tomorrow.

If you'd like to learn more about Continental Bank, ›ur hedge and arbitrage functions, and our round-the-clock trading capabilities, :all us at (312) 828-5753. And do it as soon as humanly possible. Especially, we night add, if you're reading this in a canoe.

Continental Bank
A new approach to business.

Domestic offices: Atlanta, Chicago, Dallas, Los Angeles, Miami, New York. *International offices:* Buenos Aires, Caracas, Frankfurt, Hong Kong, London, Mexico City, Milan, Paris, Santiago, São Paulo, Singapore, Tokyo

NUMBER 3167

BusinessWeek

JULY 2, 1

DARK DAYS AT McDONNELL DOUGLAS: THE TOP DEFENSE CONTRACTOR WILL LOSE FUNDING FOR APACHE HELICOPTERS AND TWO OTHER PROGRAM

Cover Story

64 WHO PAYS FOR PEACE?
Even as politicians dream about what to do with the billions from the peace dividend, an unpleasant reality is hitting home in scores of communities: With peace comes a lot of pain. Companies and towns now find themselves on a knife's edge, and they're wondering how to cope

68 BRACING FOR A SHOCK
Long Island struggles to adjust in an era of dwindling defense contracts

70 THE SMELL OF MOTHBALLS
'Suspending' M1 tank production will cost Lima, Ohio, 2,500 jobs

Top of the News

30 MOONLIGHT ON WALL STREET
The Big Board plans nighttime trading—and so do NASDAQ, Chicago, Cincinnati, and Reuters

31 WOULD YOU BUY THIS STOCK?
If the NYSE were a company . . .

32 COMMENTARY
Why the SEC shouldn't surrender the high ground

33 COLLISION COURSE
Pilots at American Airlines are up in arms over recent wage proposals

34 A FIZZLE AT COMPAQ?
Six months after the Systempro's debut, few of the machines have sold

34 STUCK IN NO-MAN'S-LAND
Businessland can't find its way

35 AIG'S HARD HAT MAY FIT FINE
It's buying contractor Fischbach

36 NEW FRONTIER FOR CABLE
Here comes digital-quality radio

37 A HIT IN THE HINTERLANDS
Movie mogul Michael Patrick

38 COMMENTARY
These 'orphans' don't need nurturing

39 HAVE MBA, WILL TRAVEL
The Class of 1990 feels the pinch

42 IN BUSINESS THIS WEEK
LTV's pension battle, the Amex, Yamaichi and Vector, TCI and NBC, Sinatra sauce, Travelers, CF's woes

International

44 SOVIET UNION
The Communist Party will probably splinter in July

45 EASTERN EUROPE
Where U. S. bankers are running a distant second to the West Germans

46 JAPAN
Nintendo isn't rushing its new, 16-b game machine to the U. S. market

49 INTERNATIONAL OUTLOOK
No quick turnaround for Venezuela

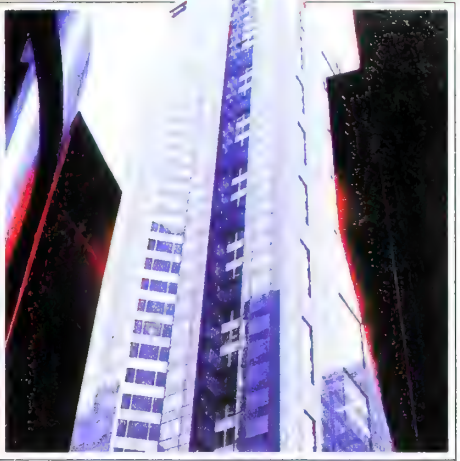
Economic Analysis

18 ECONOMIC VIEWPOINT
Roberts: Congress' S&L mess

22 ECONOMIC TRENDS
Worker exodus, consumer debt, gas prices, small business

27 BUSINESS OUTLOOK
The expansion is on the critical list

61 TAX TIES THAT BIND
More governments are tailoring tax hikes to particular programs



1 THE NEW TAX BANDWAGON: VOTERS WILL OPEN THEIR WALLETS—IF TAXES ARE AIMED AT SPECIFIC TARGETS. SO NOW, GOVERNMENTS ARE OBLIGING

62 MAKING CONTROL DATA MAKE SENSE: LARRY PERLMAN'S SHREWD SELL-OFFS HAVE CUT LOSSES AND BOOSTED PROFITS, BUT EVEN HE DOESN'T KNOW IF THE REMAINING PARTS ADD UP

72 TAKE MY BUILDING, PLEASE: THE NEW YORK AREA MARKET FOR COMMERCIAL AND RESIDENTIAL SPACE IS GLUTTED, AND BUILDERS AND THEIR BANKS ARE FEELING THE SQUEEZE

Government

3 WASHINGTON OUTLOOK
How Kemp built a housing bill that may stand up in Congress

The Corporation

0 A NEW BALLGAME FOR ITT
The dealmaking seems to be over. Now, Araskog must boost profits

0 HEALING OLD WOUNDS IN CHILE
ITT treads lightly and does some PR

2 A GURU'S MANY GIGS
How Harvard B-school prof Michael Porter packages what he preaches

Marketing

4 CHECKOUT-AISLE SOFTWARE
New programs translate scanner data into a wealth of marketing tips

Information Processing

6 A HOT MARKET FOR SOFTWARE
To maintain their world leadership, U. S. companies flock to Japan

7 COMMENTARY
Congress should put a lid on what credit bureaus let out

Science & Technology

8 HELP FOR THE OZONE
The global pact to end CFC use includes aid for developing nations

9 RIDING A RUSSIAN ROCKET
Payload Systems is launching experiments—with Moscow's help

60 DEVELOPMENTS TO WATCH
Microwaves and vision, natural gas at the pump, cash for R&D, powerful lasers, 'kamikaze' chemicals

People

62 LARRY PERLMAN TO THE RESCUE
Control Data's CEO has sold ailing units, but he still has a way to go

Finance

72 NEW YORK'S REAL ESTATE SLUMP
The boom is over, and as the walls close in on developers, the effects are being felt far and wide

30 STOCK AROUND THE CLOCK: THE BIG BOARD IS BECOMING AN AFTER-HOURS CLUB—AND THAT BRINGS THE 24-HOUR GLOBAL MARKET ONE STEP CLOSER TO REALITY

75 BREATHING LIFE INTO JUNK
RJR's performance has some buyers taking a chance on the market

77 THE GENE JOCKEYS SEE GREEN
Biotech is paying off at last—and Wall Street is paying heed

78 INSIDE WALL STREET
A Salomon sage's best buys
This makeover is looking good
Food-plus-fun finds new fans

80 BANK SCOREBOARD
BUSINESS WEEK ranks the world's 100 largest banking companies and evaluates their profitability

113 INVESTMENT FIGURES OF THE WEEK

Personal Business

88 EXPORTING: Small but global
SMART MONEY: Bonds for tuition
PETS: Homegrown exotic birds
WHEELS: 'Blades' built for speed
HEALTH: Tougher false teeth

Features

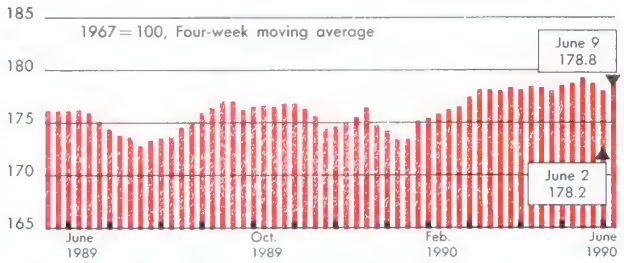
6 BUSINESS WEEK INDEX
10 READERS REPORT
14 CORRECTIONS & CLARIFICATIONS
16 BOOKS
Serious summer reads that won't weigh you down
111 INDEX TO COMPANIES
114 EDITORIALS
Digging up jobs for defense workers
U. S. banks need cheaper capital
Big science should be global science

iness Week (ISSN 0007-7135) published weekly, except for one issue in January, by McGraw-Hill Inc. U. S. subscriber rate $39.95 per year. In Canada, one year CDN $54.95. Single ies $2.00. Executive, Editorial, Circulation, and Advertising Offices: 1221 Avenue of the Americas, New York, N. Y. 10020. Second-class postage paid at New York, N. Y., and at additional mailing es. Postage paid at Montreal, P. Q. Registration Number 9010. Title Reg. in U. S. Patent Office. **Postmaster:** Send address changes to BUSINESS WEEK, P. O. Box 430, Hightstown, N. J. 08520

BusinessWeek Index

PRODUCTION

Change from last week: 0.3%
Change from last year: 1.4%

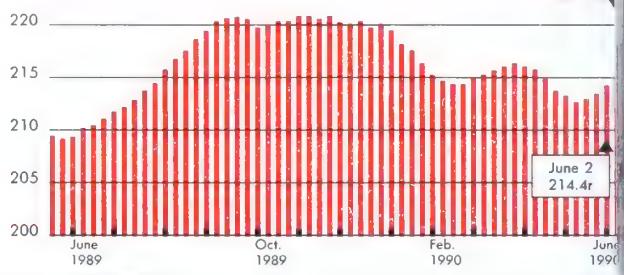


The production index advanced for the week ended June 9. On a seasonally adjusted basis, output of electric power, rail-freight traffic, steel, and paper increased. Production of autos, trucks, coal, and paperboard all declined. Crude-oil refining and lumber production were unchanged from the previous week. Before calculation of the four-week moving average, the index rose to 180.7, from a level of 177 in the week before.

BW production index copyright 1990 by McGraw-Hill Inc.

LEADING

Change from last week: 0.3%
Change from last year: 2.3%



The leading index increased for the week ended June 9, as it reached its highest point since mid-April. For the lastest week, higher stock prices, lower long-term bond yields, and faster growth in M2 offset a decline in materials prices, an increase in the number of business failures, and slower growth in real estate loans. Before calculation of the four-week moving average, the index rose slightly to 215.6, from 215.4 in the previous week.

Leading index copyright 1990 by Center for International Business Cycle Research

PRODUCTION INDICATORS

	Latest week	Week ago	% Change year ago
STEEL (6/16) thous. of net tons	1,875	1,930 #	–2.5
AUTOS (6/16) units	146,054	145,516r #	2.4
TRUCKS (6/16) units	91,479	93,093r #	3.4
ELECTRIC POWER (6/16) millions of kilowatt-hours	59,115	57,265 #	8.5
CRUDE-OIL REFINING (6/16) thous. of bbl./day	13,537	13,558 #	–1.8
COAL (6/9) thous. of net tons	20,492 #	18,424	5.2
PAPERBOARD (6/9) thous. of tons	742.2 #	749.1r	0.1
PAPER (6/9) thous. of tons	762.0 #	759.0r	4.7
LUMBER (6/9) millions of ft.	509.2 #	415.3	1.6
RAIL FREIGHT (6/9) billions of ton-miles	20.7 #	18.7	5.6

Sources: American Iron & Steel Inst., *Ward's Automotive Reports*, Edison Electric Inst., American Petroleum Inst., Energy Dept., American Paper Inst., WWPA[1], SFPA[2], Association of American Railroads.

FOREIGN EXCHANGE

	Latest week	Week ago	Year ago
JAPANESE YEN (6/20)	154	155	140
GERMAN MARK (6/20)	1.68	1.69	1.96
BRITISH POUND (6/20)	1.72	1.71	1.55
FRENCH FRANC (6/20)	5.65	5.69	6.64
CANADIAN DOLLAR (6/20)	1.17	1.17	1.19
SWISS FRANC (6/20)	1.42	1.43	1.69
MEXICAN PESO (6/20)[3]	2,847	2,839	2,473

Sources: Major New York banks. Currencies expressed in units per U. S. dollar, except for British pound expressed in dollars

PRICES

	Latest week	Week ago	% Change year ago
GOLD (6/20) $/troy oz.	346.900	350.500	–5.2
STEEL SCRAP (6/19) # 1 heavy, $/ton	114.50	114.50	0.0
FOODSTUFFS (6/18) index, 1967=100	224.4	228.1	–0.2
COPPER (6/16) ¢/lb.	116.9	119.3	0.9
ALUMINUM (6/16) ¢/lb.	73.8	74.5	–15.7
WHEAT (6/16) # 2 hard, $/bu.	3.65	3.77	–18.0
COTTON (6/16) strict low middling 1-1/16 in., ¢/lb.	75.55	77.42	16.9

Sources: London Wed. final setting, Chicago mkt., Commodity Research Bureau, *Metals Week*, Kansas City mkt., Memphis mkt.

LEADING INDICATORS

	Latest week	Week ago	% Chan year a
STOCK PRICES (6/15) S&P 500	361.72	364.17	12
CORPORATE BOND YIELD, Aaa (6/15)	9.21%	9.27%	2
INDUSTRIAL MATERIALS PRICES (6/15)	103.0	103.1	–1
BUSINESS FAILURES (6/8)	319	261	38
REAL ESTATE LOANS (6/6) billions	$372.4	$371.7	11
MONEY SUPPLY, M2 (6/4) billions	$3,273.5	$3,263.8r	6
INITIAL CLAIMS, UNEMPLOYMENT (6/2) thous.	351	356	13

Sources: Standard & Poor's, Moody's, *Journal of Commerce* (index: 1980=100), Dun & Bradstreet (failures of large companies), Federal Reserve Board, Labor Dept. CIBCR seasonally adjusts data on business failures and real estate loans.

MONTHLY ECONOMIC INDICATORS

	Latest month	Month ago	% Chan year a
HOUSING STARTS (May) annual rate, thous.	1,207	1,224	–7
INDUSTRIAL PRODUCTION (May) total index	109.7	109.0r	1
REAL GROSS WEEKLY PAY (May)	$165.07	$164.57	–0
CONSUMER PRICE INDEX (May)	129.2	128.9	4

Sources: Commerce Dept., Federal Reserve Board, BLS

MONETARY INDICATORS

	Latest week	Week ago	% Chan year a
MONEY SUPPLY, M1 (6/4)	$808.2	$803.9r	4
BANKS' BUSINESS LOANS (6/6)	323.2	322.8r	1
FREE RESERVES (6/13)	–384	390r	–49
NONFINANCIAL COMMERCIAL PAPER (6/6)	148.3	146.5	17

Sources: Federal Reserve Board (in billions, except for free reserves, which are expressed in a two-week period in millions).

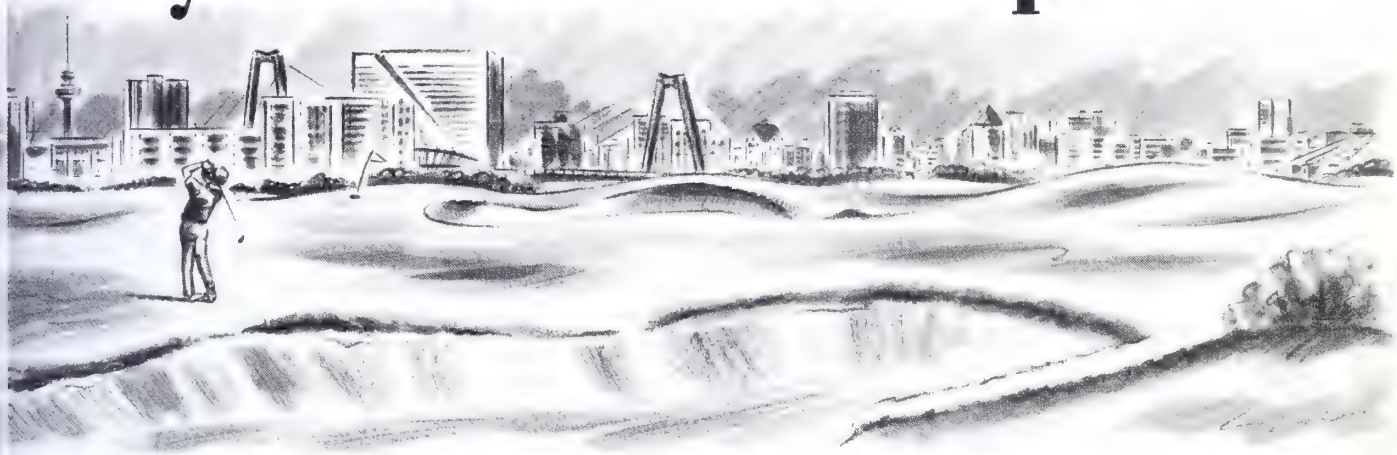
MONEY MARKET RATES

	Latest week	Week ago	Year ago
FEDERAL FUNDS (6/19)	8.25%	8.23%	9.48
PRIME (6/20)	10.00	10.00	11.00
COMMERCIAL PAPER 3-MONTH (6/19)	8.16	8.14	9.12
CERTIFICATES OF DEPOSIT 3-MONTH (6/20)	8.24	8.22	9.29
EURODOLLAR 3-MONTH (6/13)	8.21	8.23	9.18

Sources: Federal Reserve Board, First Boston

# Raw data in the production indicators are seasonally adjusted in computing the BW index (chart); other components (estimated and not listed) include machinery and defense equipme
1=Western Wood Products Assn. 2=Southern Forest Products Assn. 3=Free market value NA=Not available r=revised NM=Not meaningful

"Thinking about the best way to do your business in Europe?"



Concentrate on Rotterdam for savings on costs ith Europe's most sophisticated cargo handling and stribution network. And the greatest concentration logistics and international trade know-how in e world.

Because it puts you in control again.

Because Rotterdam is Europe's best equipped ort city.

Because operations from every continent are creasingly finding a comfortable and succesful ome in Rotterdam.

Because there are prime real estate opportnities throughout the city.

Because Rotterdam thinks of the needs of interational businessmen and their families.

Because there's plenty of imagination out there solve the thoughest challenges.

Because it is a liveable and versitile city.

Because the Rotterdammer buys his shirts with e sleeves already rolled up.

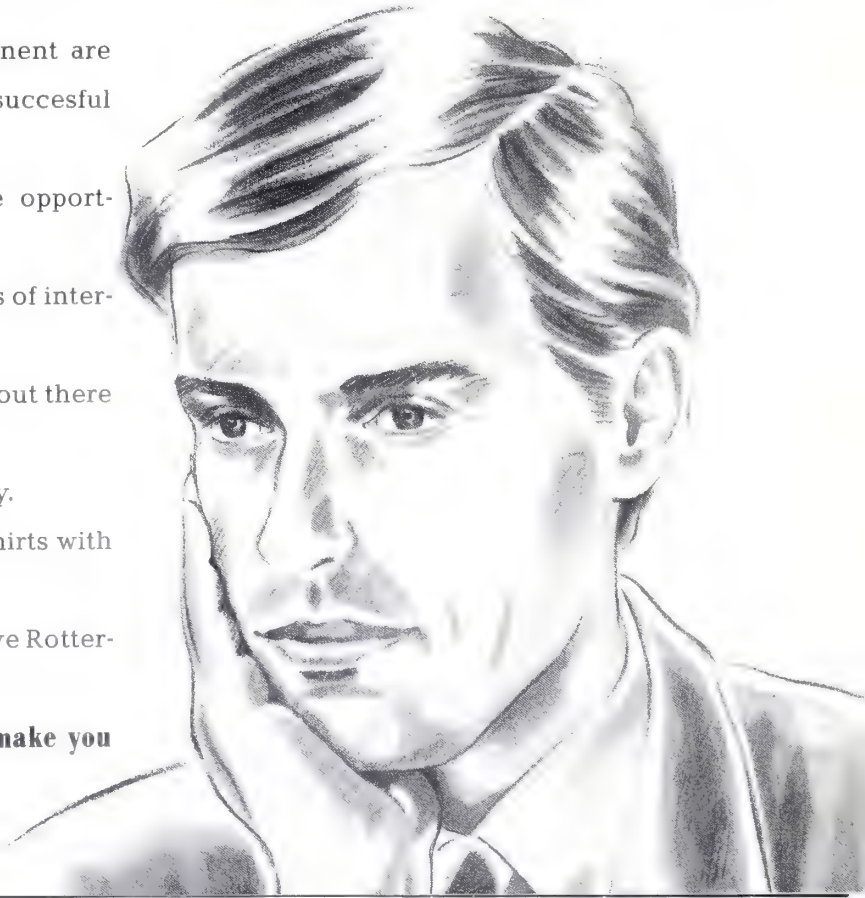
Because you and your business will love Rotterm: world port, world service.

Better to help you serve Europe and make you oney. Better to serve you.

The Port of Rotterdam and Rotterdam Development Corporation. Telefax or write your interest. Rotterdam will be delighted to send the good logistics news back. Phone 31-10-4894177, Fax 31-10-4778240.

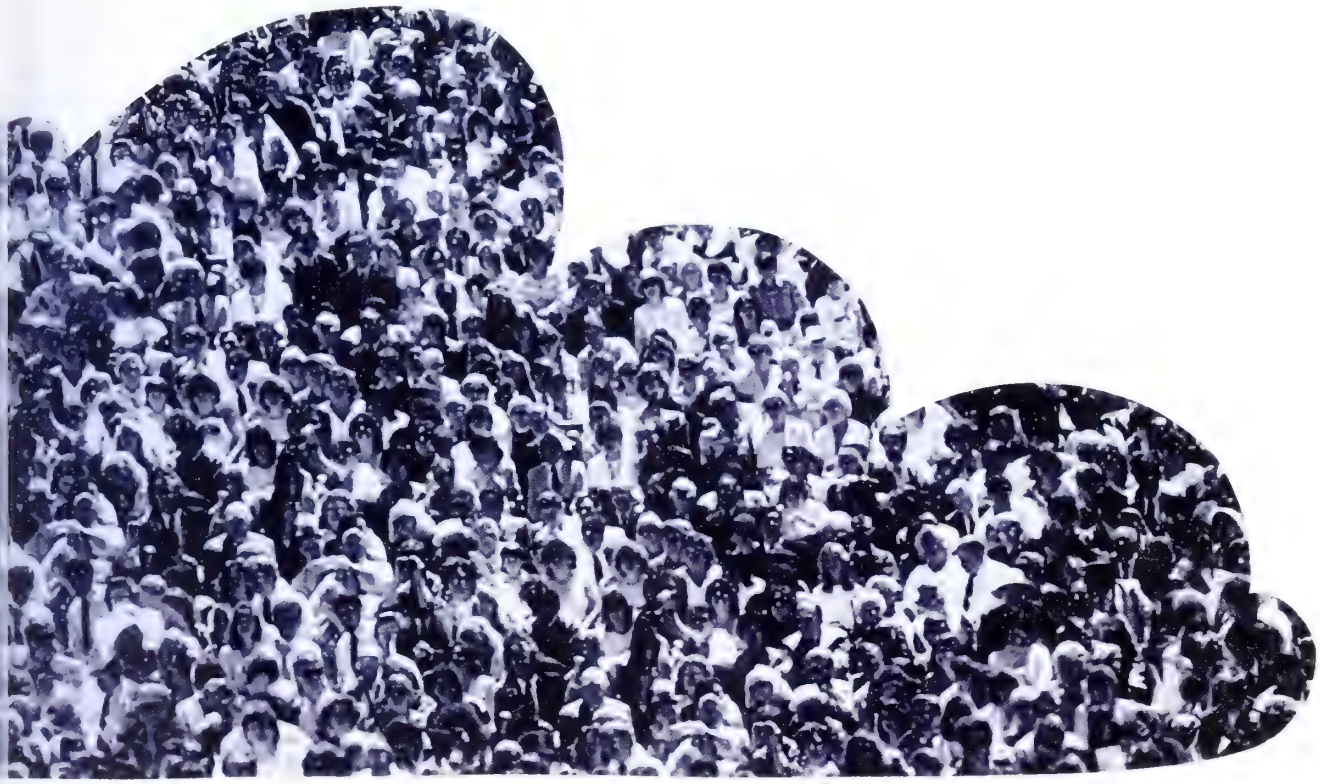
THE NEW ROTTERDAM

Rotterdam.
Part of your business.



THE UNIVERSAL LAN

AGE OF CREATIVITY.



Inspiration can arrive at any moment, but it rarely strikes in the same place twice. That's why at Daewoo we encourage our research and development people to let go, take risks, and play hunches. Nurturing the creative process has helped Daewoo, in just over 20 years, to become a universal name in fields as diverse as trading and shipbuilding, aeronautics and electronics, construction and telecommunications, finance and heavy industry. To find out how our creative solutions can solve the challenges facing your company, call Daewoo.

Daewoo International (America) Corp. (212) 909-8200.

DAEWOO

THE UNIVERSAL LANGUAGE OF QUALITY.

EDITOR-IN-CHIEF: Stephen B. Shepard
MANAGING EDITOR: John A. Dierdorff
EDITOR: William Wolman
ASSISTANT MANAGING EDITORS: John Maughan, Mark Morrison, Anthony J. Parisi
ART DIRECTOR: Malcolm Frouman
SENIOR EDITORS: Bob Arnold, Nancy Cardwell, Robert J. Dowling, Stuart Jackson, Richard F. Janssen, Geoff Lewis, Sally Powell, Ciro Scotti, Lee Walczak (Washington), G. David Wallace, Seymour Zucker
EDITORIAL PAGE EDITOR: John E. Pluenneke
CHIEF OF CORRESPONDENTS: Keith G. Felcyn
INTERNATIONAL EDITION EDITOR: Frank J. Comes
SENIOR WRITERS: Anthony Bianco, John A. Byrne, Judith H. Dobrzynski, John Hoerr, Gene G. Marcial, Bruce Nussbaum, John Pearson, Otis Port, Chris Welles, Brenton Welling
ASSOCIATE EDITORS: Duane E. Anderson, Robert Barker, Elizabeth Ehrlich, Marc Frons, William J. Holstein, Jeffrey M. Laderman, William D. Marbach, Mark N. Vamos
DIRECTOR EDITORIAL SYSTEMS & OPERATIONS: Thomas J. Reed
SENIOR SYSTEMS MANAGER: Richard I. Ulman
PICTURE EDITOR: Lawrence Lippmann
ECONOMICS: James C. Cooper (Business Outlook editor), Kathleen Madigan (Assoc.), Karen Pennar (Economics editor), Christopher Farrell (Assoc.), Michael J. Mandel (Assoc.), Gene Koretz (Economic Trends editor), William Glasgall (International)
DEPARTMENT EDITORS: Books: Denise Demong. **Corporate Finance:** Larry Light, David Zigas (Assoc.) **Industries:** Thane Peterson. **Information Management:** Jeffrey Rothfeder. **Information Processing:** John W. Verity. **International Edition:** Elizabeth Weiner. **International News:** Peter Galuszka. **Investment Banking:** Jon Friedman. **Labor:** Aaron Bernstein. **Legal Affairs:** Michele B. Galen. **Marketing:** Christopher Power, Amy Dunkin (Assoc.). **Markets & Investments:** Gary Weiss. **Media:** Susan Duffy. **Money & Banking:** John Meehan. **News:** Harris Collingwood. **People:** Peter Finch. **Personal Business:** Donald H. Dunn. **Science:** Emily T. Smith. **Scoreboards:** Robert Mims. **Telecommunications:** Peter Coy. **Transportation:** Michael Oneal
STAFF EDITORS: Brian Bremner, Deidre A. Depke, Naomi Freundlich, Bruce Hager, Fred F. Jespersen, Mark Landler, Leah J. Nathans, Stanley Reed, Monica Roman, Andrea Rothman, Troy Segal, Suzanne Woolley
ASSISTANT EDITOR: Laura Zinn
COPY EDITORS: Harry Maurer (Deputy chief), Michael Mercurio, Joan Warner (Asst. chiefs), Marc Miller, Jack Robbins, Jim Taibi (Sr. Copy Editors), Tim Belknap, Pam Black, Prudence Crowther, Carl Desens, Hardy Green, Aleta Kaufman, Cynthia McClean, David Pengilly, Malka Percal, Barbara Tierney, Dalia Kandiyoti, Kim Jacobs, Aida Rosario, Rebecca Stead (Researchers)
PRODUCTION COPY EDITORS: Donald Halsband (Chief), Hallberg Hallmundsson, Robert S. Norman, Celine Keating, Karen Leiner, Stephan M. Romanoff
ART: Laura Baer, Steven Taylor (Deputy directors), Jen Hansen, Eric Rosenberg (Assoc. directors), Pamela Harris, Craig Socia (Asst. directors). **Graphics:** Arthur Eves (Director), Joan Danaher (Deputy director), Rob Doyle (Sr. Illustrator), Laurel Daunis, Ray Vella (Illustrators). **Production:** Mary Lee Schneider (Mgr.), Stephen J. Romeo (Asst. mgr.)
PHOTOS: Sue Bloom (Deputy Picture editor), Scott Miyn (Assoc. Picture editor), Todd James, Anne Murray, Ronnie Weil (Asst. editors), Kathleen Daly (Researcher), Bettina Baudoin (Researcher - Paris), Joan Clark (Traffic), Lawrence Crowe (Librarian)
EDITORIAL OPERATIONS: Albert E. Baker, Richard Balestrino, A. Peter Clem, Yvonne Rodriguez, Claire Worley (Production managers), Thomas R. Dowd, Sharon L. Eng, Fidel Lee, José L. Martin, Jane M. Perkinson, Craig Sturgis, Karen Turok, Ilse V. Walton, Nicholas White (Makeup editors), Felix Lindicy (Makeup asst.), Donald C. Pearson (Traffic manager), Dale I. Arnold, Edgardo Torres (Production assts.)
CORRESPONDENTS: Jerome Zukosky (Deputy chief). **Atlanta:** Chuck Hawkins (Mgr.), Walecia Konrad. **Boston:** Keith H. Hammonds (Mgr.), Laura Jereski, Gary McWilliams. **Chicago:** James E. Ellis (Mgr.), David Greising, Kevin Kelly, Julia Flynn Siler, Lois Therrien. **Cleveland:** Zachary Schiller (Mgr.), Maria Mallory, Stephen Phillips. **Connecticut:** Todd Vogel (Mgr.), Lisa Driscoll. **Dallas:** Wendy Zellner (Mgr.), Jim Bartimo. **Denver:** Sandra D. Atchison (Mgr.), William C. Symonds (Sr. Correspondent). **Detroit:** James B. Treece (Mgr.), David Woodruff. **Houston:** Mark Ivey (Mgr.). **Los Angeles:** Ronald Grover (Mgr.), Larry Armstrong (Sr. Correspondent), Kathleen Kerwin, Eric Schine. **Miami:** Gail DeGeorge (Mgr.), Antonio N. Fins. **Minneapolis-St. Paul:** [illegible] Mitchell (Mgr.). **Philadelphia:** [illegible] Weber (Mgr.). **Pittsburgh:** Gregory L. Miles (Mgr.), Michael Schroeder. **San Francisco:** Joan O'C. Hamilton (Mgr.), Richard Brandt, Barbara Buell, Robert Hof, Maria Shao. **Seattle:** Dori Jones Yang (Mgr.). **Washington:** Stephen H. Wildstrom (Sr. News Editor), Stan Crock (News Editor), Amy Borrus, Vicky Cahan, John Carey, Paula Dwyer, Dean Foust, Susan Garland, Howard Gleckman, Dave Griffiths, Douglas A. Harbrecht, Bill Javetski, Mark Lewyn, Paul Magnusson, Mike McNamee, Seth Payne, Tim Smart, Catherine Yang. **Bonn:** John Templeman (Mgr.), Gail Schares. **Brussels:** Jonathan Kapstein (Mgr.). **Hong Kong:** Dinah Lee (Mgr.), Pete Engardio. **London:** Richard A. Melcher (Mgr.), Mark Maremont. **Mexico City:** Stephen Baker (Mgr.). **Moscow:** Rose Brady (Mgr.). **Paris:** Stewart Toy (Mgr.), Jonathan B. Levine, Blanca Riemer. **Rome:** John Rossant (Mgr.). **Sao Paulo:** Jeffrey Ryser (Mgr.). **Tokyo:** Robert Neff (Mgr.), Neil Gross, Ted Holden
EDITORIAL SERVICES: Broadcasting: Ray Hoffman. **Business Manager:** Barbara Boynton. **Information Services:** Jude Hayes (Director), Judi Crowe (Asst. editor), Dana Gordon, Fred Katzenberg, Jessie Khatami, Rex Long. **Public Relations:** Christine Summerson, Josephine Coppola. **Reprint Permission:** Vivian J. K. Betton. **Systems:** Ron Brayer, Courtenay Eddy

PUBLISHER: John W. Patten
SR. VP, DIRECTOR OF MARKETING: John J. Bedell
SR. VP, OPERATIONS: Gary B. Hopkins
VPs, INTERNATIONAL: Gerd Hinske, Earl S. Moore, Jr.
VP, PLANNING & DEVELOPMENT: Barbara Munder
VP, CIRCULATION: Kitty Carroll Williams
VPs, SALES: Constance E. Bennett (San Francisco), John R. Campbell (Stamford), Charles W. Hennessy (Philadelphia), Irwin Kornfeld (New York), Thomas O. McDonough (Chicago)
DIRECTOR, ADVERTISING BUSINESS: Linda F. Carvalho
DIRECTOR, PRODUCTION: Mario J. Talluto

Readers Report

BIOTECH: RISKY BUSINESS, TRICKY ETHICAL QUESTIONS

I want to compliment you on a well-done article ("The genetic age," Cover Story, May 28). As a founder of two of the companies mentioned, Integrated Genetics Inc. and Transgenic Sciences Inc., I have followed this field closely.

Some of your readers may be interested in knowing how extraordinarily difficult it is to start one of these companies in today's financial climate. For example, Transgenic Sciences started with an initial investment of only $350,000. This was supplemented with a $150,000 lease line from a major Boston-area bank, a small private placement of $125,000, $150,000 of my money, and then a $400,000 bridge loan prior to going public in May, 1989. We were only one of a very few biotechnology companies that was able to go public in 1989, and we only raised $3.5 million. Fortunately, we are now a very well-financed and solid company with revenues annually in the $12 million range.

F. Donald Hudson
Boston

Margery Shaw suggests that "knowingly giving birth to a child with a painful disease could be viewed as child abuse." This position follows from a failure to acknowledge the inherent value of human life.

Limiting life's value to personal or cultural measures of tolerable suffering will morbidly compel us to end lives when suffering is too great. Handicapped children and the aged are likely victims. To suggest that parents who choose to love and care for a disabled child are child abusers is absurd.

My fear is that such fuzzy thinking will desensitize our inhibitions to so-called mercy killings, which are likely to occur primarily when care-givers wish to be freed from their burdens.

David T. Vader
New Paltz, N. Y.

Several major ethical issues were left out of your Cover Story and warrant some reflection. These include the patenting of genetically engineered animals and the welfare of animals subjected to such engineering; the impact on Third World agricultural economies of new genetically engineered products such as synthetic cacao and vanilla; and the irony of using biotechnology to help us adapt to an increasingly poisoned and dysfunctional environment in part caused by those multinational corporations that are now investing in this new technology, for better or for worse.

Michael W. [illegible]
Vice-President
Humane Society of the United States
Washington

BREAKING DOWN DNA'S GENEALOGY

James Watson and Francis Crick did not discover DNA ("The tricky ethics of genetic research," Editorials, May 21). They did, however, elucidate its molecular structure. For this extraordinary feat, these and other scientists were awarded the Nobel prize. At the time Crick boasted (off the record) to have "discovered the secret of life"—a fairly accurate prediction.

Abraham Saloma-Orozco
Ladue, Mo.

THE AGGRESSIVE APPROACH HELPS TO SELL BOATS, TOO

I couldn't agree more with BMW's new president, Karl Gerlinger, about moving away from passive showroom selling ("Now, they're selling BMWs door-to-door—almost," Marketing, May 14). If you think high-priced luxury cars are subject to the vagaries of tax laws and economic conditions, try running a small company that sells only midpriced power- and sailboats.

Sensing impending problems building up with the decline of high tech and in the financial community, and the problems left by Michael Dukakis in Massachusetts, 18 months ago I made several strategic moves to find alternate marketing methods to find customers for our Brunswick-made line of power boats. We made our own VCR tapes, offered to bring boats to customers at work, made tie-in plans with major retail "wholesale clubs," displayed our boats at every

BUSINESS WEEK
JULY 2, 1990 ***3167
ISSN 0007-7135

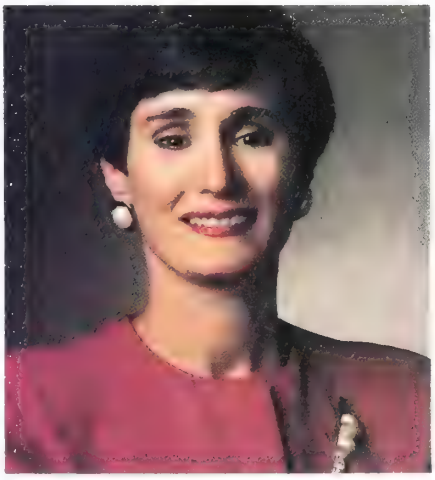
Published weekly except for one issue in January by McGraw-Hill, Inc. Founder James H. McGraw (1860-1948)
Executive, Editorial, Circulation, and Advertising Offices: McGraw-Hill Building, 1221 Avenue of the Americas, New York, N.Y. 10020. Telephone (212) 512-2000. Domestic Telex 12-7960, International Telex 232365; Cable McGraw-Hill New York, TWX 710-581-4879
[illegible] Subscription rate: 1 year 2 years $69.95, 3 years $94.95. Single copies $2. Write for rates in other countries.
Business Week Subscriber Services 1-800-635-1200

European Circulation Center, McGraw-Hill House, Maidenhead, Berkshire, England. Telephone (0628) 23431. Telex 848000.
Postmaster: Please send address changes to BUSINESS WEEK, P.O. Box 430, Hightstown, N.J. 08520. Second-class postage paid at New York, N.Y., and at additional mailing offices. Postage paid at Montreal, P.Q. Registration Number 9010. Copyright © 1990 by McGraw-Hill Inc. All rights reserved. Title registered in U.S. Patent Office.

Officers of McGraw-Hill, Inc.: Joseph L. Dionne, Chairman, President and Chief Executive Officer; Robert N. Landes, Executive Vice President, General Counsel, and Secretary; Harold W. McGraw, III, Executive Vice President; Frank D. Penglase, Senior Vice President, Treasury Operations

PHOTOCOPY PERMISSION: Where necessary, permission is granted by the copyright owner for those registered with the Copyright Clearance Center (CCC), 27 Congress St., Salem, Mass. 01970, to photocopy any article herein for the flat fee of $1.50 per copy of each article. Send payment to the CCC. Copying for other than personal or internal reference use without express permission of McGraw-Hill is prohibited. Address requests for customized bulk reprints to Business Week Reprints, P. O. Box 457, Hightstown, N. J. 08520, or call 609 426-5494. ISSN 0007-7135/90/$2

"KEEP IT CLEAN."



Madeleine Marchese
General Manager, Marketing
Texaco Syngas Inc.

"For five years, Texaco's gasification technology lighted 100,000 homes with clean energy from coal. We keep it clean with a gasification process that we invented and perfected. It's a very workable solution to a difficult environmental problem."

Madeleine Marchese is General Manager, Marketing for Texaco Syngas Inc.

"Our coal gasification process has produced over 2.5 billion kilowatt hours of electricity for California residents. That's a record no other coal gasification process has even come close to.

"The Texaco process has not only been proven economically, it exceeds the clean air standards proposed by the Bush Administration. That proposal is for the year 2000. Texaco is ready *now.*

"As a technology, coal gasification is a powerful tool in the fight against acid rain. As an alternate energy source, it makes us more energy self-sufficient. We have a 300 year supply of coal at current consumption rates.

"Texaco people have even devised ingenious methods to expand the technology for the gasification of municipal sludge. Our process is designed not only to get rid of sludge but to *transform* it into usable energy."

Clearly, there is enormous potential for America and its environment. And for the future.

Star of the American Road

TEXACO–WE'VE GOT THE ENERGY.

Now that everyone agrees how a computer should wor

Judging by what you see on magazine covers these days, the world now wants what the Macintosh® computer has always had. And, suddenly, the idea that a personal computer should work the way people do has been embraced by virtually every major player.

Well, since "Mac-like" is the promise on every lip, this might be a good time to point out just what a Mac® is like.

What makes a Macintosh a Macintosh is not just cheerful icons, a mouse, pull-down menus and other surface manifestations. A Macintosh is a Macintosh from the inside out. Conceived from the chip up to work intuitively and visually.

Because it's truly consistent, the entire family of Macintosh personal computers all run the same software with identical point-and-click simplicity.

Because it's a true system, Macintosh printers and other peripherals all connect together quickly and logicall Just plug them in and turn them on.

Because we engineer both the hardware and its ope ating software, Macintosh runs with the smooth speed and precision you'd expect from any perfectly integrated desig

And because Macintosh isn't a "graphical" shell grafted on top of a character-based system, it doesn't expend lots expensive computing power trying to do something it wasn't designed for.

Which is why, for less than it usually costs to buy the software and the high-end hardware needed for a Mac loo alike, you can have the true article.

Instead of making do with a handful of graphicize programs, you can choose from the thousands of highly i novative business applications developed specifically for

**The figures don't come from us. They're from a 1990 study conducted by Diagnostic Research, Inc., among* Fortune 1000 *MIS managers and business computer users. Call and we'll send you a copy.* © 1990 Apple Computer, Inc. Apple, the Apple logo, Mac, and Macintosh are registered trademarks, and SuperDrive and "The power to be your best

try the only one that actually works that way.

:intosh over the last seven years. And instead of patiently
wing the long path from yesterday's MS-DOS to Windows
ıe interim and to OS/2 in the someday, you can make
simple step to Macintosh.

The benefits of that step, according to a new indepen-
t study* by Diagnostic Research, Inc., are considerable.
:ems people prefer a machine that works like people do.
And they get more done with it.

Users rated Macintosh 14% higher for overall satisfac-
and 13% higher for performance than for PCs running
ıdows. Which, according to information managers in the
ıe study, translated into productivity ratings which were
; higher.

Meanwhile, what would you sacrifice by making the
ınge to Macintosh?

Not your PC files. Every Macintosh equipped with an Apple™ SuperDrive™ disk drive moves information between a Macintosh and an MS-DOS or OS/2 PC on standard 3½-inch floppy disks.

And not your PC programs, either. With products like SoftPC a Macintosh can run virtually any DOS application. We invite you to call 800-538-9696, ext. 875, for the names of your nearest authorized Apple resellers.

Then come in and see what inspired the monumental changes you've been reading about.

After all, now that everybody else is trying to sell you a Macintosh, maybe you should buy one.

The power to be your best.™

rademarks of Apple Computer, Inc. MS DOS and Windows are registered trademarks of Microsoft Corporation. OS 2 is a registered trademark of International Business bines, Inc. SoftPC is a registered trademark of Insignia Solutions, Inc. Fortune 1000 includes Fortune 500 and Fortune Service 500, which are registered trademarks of Time, Inc.

shopping mall that would let us in, and offered special packages as employee benefit programs through employee benefit administrators. The result: Sales are up 15% over last year. One downside, however, was flak from other dealers and from Brunswick, who felt that we were overstepping our dealer agreement by having their products displayed in "wholesale club" stores. We have temporarily withdrawn the boats from the discount stores and have already seen our sales slowing.

Arthur Rieders
President
Havencraft of New England
Sudbury, Mass.

HOW THE GRAY MATTER GOT INTO PRINT

I am writing to correct the record in your article about Attorney General Richard Thornburgh ("Can Dick Thornburgh get out of the briar patch," Washington Outlook, May 28).

The FBI, the Criminal Div. of the Justice Dept., the Office of Professional Responsibility, and the U. S. Solicitor General have investigated or reviewed the investigation into the unauthorized disclosure of information concerning Representative William Gray III. Each of these investigations has concluded that "Justice's executive suite" was not the reporter's source, although she may have taken a comment I made as confirmation.

David Runkel
Assistant to the Attorney General
Office of the Attorney General
Washington

Editor's note: David Runkel is referring to a leak against House Majority Whip Gray that, as BUSINESS WEEK stated, some sources claim originated in Justice's top offices. The reporter he mentions is not from BUSINESS WEEK.

CABLE TV IS JUST FACING A LITTLE STATIC

Things are nowhere near as bad as your report on cable TV financing made them appear to be ("Why the banks are unhooking cable," Top of the News, June 4). The biggest bugaboo confronting cable in recent months has been uncertainty—about legislation, regulation, and lending constraints. This uncertainty is on the verge of clarification.

Cable will likely be required to operate under some new rules, but none of them will adversely affect the basics of what is still a very exciting growth business. A lot of lenders remain ready, willing, and able to support the industry. The form of that support may be somewhat different from what it has been in the past, but its substance will probably continue to be as strong as ever.

Thomas J. Kerver
Business Editor
CableVision
Denver

CORRECTIONS & CLARIFICATIONS

"David Dinkins: How's he doin'?" (People, June 18) stated that State Comptroller Edward V. Regan considers New York City's revenue projections overly optimistic. While Regan held that view last spring, the city has since revised its projections, and he finds them fiscally prudent.

"Timepieces that will stand the test of time" (Personal Business, June 11) stated that Audemars Piguet no longer makes its own watch movements. According to the company, it still makes three movements at its own factory. Its other mechanical movements, using the same technology, are made by Jaeger LeCoultre, which is 40% owned by Audemars Piguet.

LBOs AND THE MATHEMATICS OF THE DEFICIT

Has anyone noticed that the lower-than-expected corporate income tax payments ("Saying no to another 'slide by' budget . . . ," Editorials, May 21) are due in part to the fact that each leveraged buyout has converted taxable profits into nontaxable interest payments?

Harold Furst
El Cerrito, Calif.

WILL WORKER PARTICIPATION COME OUT OF HIBERNATION?

The commentary "The strange bedfellows backing workplace reform" (Labor, Apr. 30) was not altogether accurate. The National Association of Manufacturers strongly supported the concept of worker participation in the latter 1960s.

When I was NAM's vice-president for industrial relations in 1968, we organized an important conference on the theme of "Maximizing Our Human Resources." William May, then-chairman of the NAM Industrial Relations Committee and the chairman and CEO of American Can, said in a covering statement that each company faced a fundamental challenge to take an "overall approach to its most important asset, its people, and the means by which these human resources can be translated into a dynamic, responsive, and well-motivated enterprise.

The tragedy is that most of Americ industry lost sight of this fundamen challenge in the '70s and '80s. As a sult, hundreds of thousands of Americ workers have lost their jobs, and we a far less competitive as a country world markets.

William K. Zin
Human Resource Services I
New Yo

THE BEST ELECTRIC CAR MAY STILL BURN GAS

Regarding "GM drives the electric c closer to reality" (Science & Tec nology, May 14), there is a third conten er in the gasoline vs. electricity trad off: Choose both.

The hybrid electric car uses a small, to 15-horsepower gasoline engine to what it does best: run at a consta speed, driving a generator to rechar the car's batteries. Electric motors a used for what they do best: provide va able-speed power directly to the drivi wheels. A small, efficiently used gas line engine adds a minimal amount pollution vs. the purely electric ca while sharply increasing the range b tween plug-in chargings. The hybr electric will accelerate the time fran for a practical replacement of today gas guzzlers.

Michael Murph
California Technology Stock Lett
San Francis

THE ONLY THING THESE STUDENTS HAVE IN COMMON IS GENDER

Reading your story about my alm mater, I was impressed that it ma aged to capture the emphasis on orga zational behavior that is one of the pr gram's strengths ("The Simmons school: Striving to be the equalizer," Th Corporation, May 21).

The article, however, underemphasiz the other great strength of the progra which is the diversity of its student lack of males notwithstanding. The st dents come to the program from a tr mendous variety of cultural, age, a career backgrounds. And, contrary the impression left by the article, near as many students enter the progra with advanced degrees as without c lege degrees.

Carol C. Irw
Bost

Letters to the Editor should be sent to Reade Report, Business Week, 1221 Avenue of the Ame cas, New York, N. Y. 10020. Fax: (212) 512-44 Telex: 12-7960, Intl. 4998204. All letters must clude an address and daytime and evening te phone numbers. We reserve the right to edit lette for clarity and space.

THERE'S A WORD FOR BUSINESS PEOPLE WHO DON'T USE SKYTEL. LUNCH.

In the eat or be eaten world of business, there is no reward for coming in second. To win a sale, a case, a client, you have to get there first. This means it's not just *what* you know but *when* you know it that counts.

Which explains why so many Fortune 500® companies, federal agencies and others depend on SkyTel.™

Say you're away from the office and someone needs to get a vital message to you. They simply dial SkyTel's 800 number and punch in your code.

Seconds later, our unparalleled nationwide satellite system relays a message to your compact (2.5 oz.) SkyPager.® You get the message instantly, without the burden of constantly checking in.

There's also SkyTalk,™ which allows people to leave you detailed voice messages and instantly notifies you of them.

Either way, you'll be hours ahead of your competitors. Plenty of time for you to work up a really good appetite.

1-800-456-3333. EXT 223

Or fax to (601) 354-9036. Or mail to SkyTel, 1850 M St. NW, Suite 800, Washington, DC 20036.

Name_____

Company_____ Title_____

Address_____

City_____ State____ Zip____

Phone(O) _____

Phone(H) _____

SkyTel™

An unfair business advantage.™

BW-WF-070290

SERIOUS SUMMER READS THAT WON'T WEIGH YOU DOWN

Well, I don't know about you, but I didn't read Tom Wolfe's *The Bonfire of the Vanities* until last year. It's not that I wasn't interested. I just couldn't bear lugging the darn thing around. I tore through *Bonfire* on the beach last summer. In paperback.

For me, catching up on my reading is one of summer's special pleasures. If you feel the same way, here's some of the best of what's available between softcovers this season.

From Beirut to Jerusalem by Thomas L. Friedman (Anchor, $12.95; August). During his years in Lebanon and Israel for *The New York Times*, Friedman won two Pulitzers. Since the hardcover publication of *From Beirut to Jerusalem*, he has picked up a slew of additional prizes, including the National Book Award for nonfiction. Friedman is tough on the PLO and on Israel—particularly on that country's failure, over more than 20 years, to accommodate the 2 million Palestinians under its control. An important thread is Friedman's transformation from a fanatic teenage supporter of Israel to a mature journalist disillusioned with the Jewish state.

The Enigma of Japanese Power by Karel van Wolferen (Vintage, $14.95). Last year's big Japan book, this readable and controversial analysis of Japanese politics concludes, in effect, that no one is in charge. Dutch journalist van Wolferen, a resident of Japan for more than 25 years, draws on sources rarely tapped by Western commentators to depict the Japanese government as a host of warring factions. The lack of accountability at the center explains why the U. S. never makes substantial progress in trade negotiations with Japan.

In Our Image: America's Empire in the Philippines by Stanley Karnow (Ballantine, $14.95). Winner of the Pulitzer prize for history, *In Our Image* spans more than three centuries but focuses on the complicated relationship between the U. S. and the Philippines over the past 90 years. Karnow sees the two countries as caught in a parent-child relationship, with the U. S. trying to recreate itself in the Philippines.

Stealing From a Deep Place: Travels in Southeastern Europe by Brian Hall (Noonday, $8.95). Hall was just out of Harvard when he set off in 1981 by bicycle to explore the "elusive" countries of Romania, Bulgaria, and Hungary. His book alternates between accounts of his adventures and sharp observations about history and politics. The subsequent upheaval in Eastern Europe gives his portrait of the region—especially of a hungry Romania—new resonance.

Territory of Lies by Wolf Blitzer (Harper Paperbacks, $4.95). In 1984, Jonathan Jay Pollard, a civilian analyst for the Office of Naval Intelligence, began spying for Israel. The satellite photos he provided were so good that, despite the risks, his Israeli contacts kept demanding more. This disquieting tale has all the elements of a thriller except suspense (Pollard is serving a life sentence). Blitzer, formerly Washington bureau chief of the *Jerusalem Post*, reveals how vulnerable America's secrets are.

The Managerial Mystique: Restoring Leadership in Business by Abraham Zaleznik (Perennial Library, $10.95). Zaleznik, a professor at Harvard business school, contends that MBA programs give students a technical education and an exaggerated sense of self-importance, but no useful values. Subsequent managers develop tunnel vision as th grapple with the American emphasis short-term results. This situation, sa Zaleznik, has "nailed the coffin shut" business as a constructive social instit tion. Not a new argument, but a time and compellingly stated one.

Sudden Death: The Rise and Fall of E. Hutton by Mark Stevens (Plume, $9.9 The beginning of the end for Hutt was the 1982 departure of George Ball, head of its retail system. As St vens tells it, Ball was driven out by CE Robert M. Fomon, who resented Bal role in the company's success and su jected him to incessant public ridicu While *Sudden Death* adds little news earlier press accounts, it is rich in ane dotes and personalities.

Memoirs of an Unregulated Economi by George J. Stigler (Basic, $9.95). W ner of the 1982 Nobel prize for econom science and a founder of the free-market "Chicago school," Stigler writes in a style accessible to those with even a casual interest. Stigler opens the window on the academic world of economics, far removed from the more visible realms of government and business where academia's standard of truth is often bent by political beliefs or service to the bottom line. Economists, Stigler notes early on, tend to think differently from other people. His explanations of that perspective are so persuasive that you may start to look at the world in a different way, too.

Innumeracy: Mathematical Illiteracy and Its Consequences by John Allen Paulos (Vintage, $8.95). Short and breezy, this is both an entertaining quiz book and a polemic about the inadequacies of American math education. The social costs of "innumeracy," says Paulos, range from unfounded government policies to belief in pseudosciences. You can read slowly and grapple with the math problems. Or skip over the brainteasers—you'll still gain an appreciation for the beauty of logic and the importance of math.

Circus of Ambition: The Culture of Wealth and Power in the Eighties by John Taylor (Warner, $12.95). This is an exuberant anthropological trek through the 80s, a decade *New York* magazine writer Taylor bills as a turning point in U. S. values. Taylor depicts a new social order abashed in its desire to acquire, and especially to flaunt, wealth. Skip over his attempts to put the era into historical perspective. These stories of the antics of the denizens of Wall Street and Park Avenue speak for themselves.

Summer of '49 by David Halberstam (Avon, $4.95). The heart of this book is the '49 pennant race between the New York Yankees and the Boston Red Sox. Halberstam frames '49 as the swan song of baseball's age of innocence: Most games were played in daylight—and none on Astroturf. If you couldn't attend, you listened to them on the radio. Salaries were modest. But Halberstam doesn't harp on cosmic implications. Play-by-play descriptions of the gripping final games and close-ups of baseball heroes make this a must-read for fans.

The Most Beautiful House in the World by Witold Rybczynski (Penguin, $8.95). The most beautiful house in the world, writes architect Rybczynski, is the one you build for yourself. This is his charming account of the years he spent doing just that. Within the framework of that tale, Rybczynski ruminates conversationally on landscape, children's games, architectural history and criticism, the design process, and the meaning of home.

Bicycle Days by John Burnham Schwartz (Plume, $8.95). In this modern coming-of-age novel, written when Schwartz was 24, the hero tries to leave behind his family's troubles by going to Tokyo to work for a computer company. Schwartz wryly evokes the difficulties and discomforts of being a cultural outsider in contemporary Japan.

Nice Work by David Lodge (Penguin, $8.95). This British comic novel features the manager of a failing industrial plant and a feminist university lecturer who shadows him in an effort to foster better academic-industrial understanding. Satirist Lodge skewers both academic pretension and tangled business values.

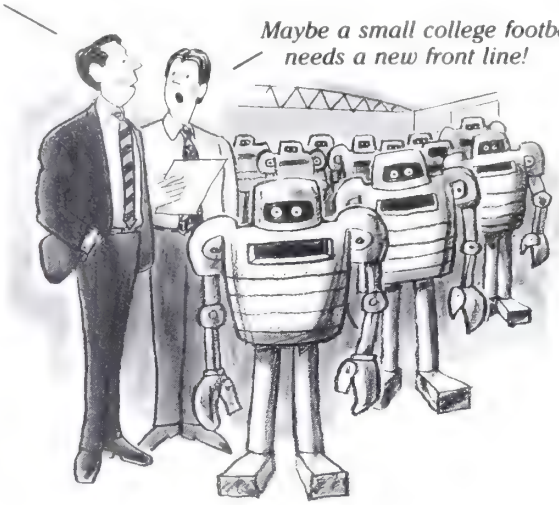
Agent of Influence by David Aaron (Avon, $4.95). Protagonist Jayson Lyman is a fictionalized version of notorious dealmaker Jeff Beck, once Aaron's boss. The book traces the biggest deal of Lyman's career, advising a French mogul who wants to take over a huge American media company. Better on the mechanics of dealmaking than on the psyche of the dealer, this mystery-thriller is still a page-turner. Will Lyman do right by his country and his woman, even if it costs him a $20 million fee? Guess.

BY DENISE DEMONG

Denise Demong edits the Books section.

What are we going to do with your extra robots, Fenton?

Maybe a small college football team needs a new front line!



CALL EAL IF YOUR CORPORATION HAS MATERIAL AVAILABLE FOR DONATION.

EAL - Will take your donated material and use it to generate scholarships for needy, deserving students. Donations could mean an above cost tax deduction - IRS Reg.170(e)(3). Scholarships are given in the donating corporation's name.

EA

Educational Assistance Ltd.℠

P.O BOX 3021 • GLEN ELLYN, ILLINOIS 60138

For More Details Call 708 690 0010 Peter Roskam Executive Director

Take care of business.

Affix your present BusinessWeek mailing label here

☐ I'm moving, please change my address as indicated below

☐ Please extend my BusinessWeek subscription for one year at **$39.95** (In Canada, C$ 54.95).

☐ I'd like to become a subscriber for one year (51 issues) at **$39.95**

Name _____ (please print)

Address _____

City _____

State _____ Zip _____

☐ Check enclosed ☐ Bill me later

To take care of any other business, call toll free **1-800-635-1200**

BusinessWeek SUBSCRIBER SERVICE

Mail entire ad to
Business Week
P.O. Box 421
Hightstown, NJ 08520

HOW CONGRESS' FOOLHARDINESS SANK THE S&Ls

BY PAUL CRAIG ROBERTS

By rushing to pass legislation to get the crisis behind it, Congress not only piled up insolvent S&Ls in the government's hands—it also maximized the losses by forcing thrifts to sell off their high-yield bonds

PAUL CRAIG ROBERTS HOLDS THE WILLIAM E. SIMON CHAIR OF POLITICAL ECONOMY AT THE CENTER FOR STRATEGIC & INTERNATIONAL STUDIES IN WASHINGTON

Republicans in the House and Democrats in the Senate are demanding an independent counsel or special prosecutor to investigate the savings and loan scandal. With the taxpayer cost of federal deposit insurance for the failed S&Ls estimated by the Treasury at $132 billion and by the Congressional Budget Office at $150 billion, Congress wants to hold someone responsible.

Freshman Representative Peter P. Smith (R-Vt.) and 118 co-sponsors have called for broadening the investigation to include the actions of regulators, the White House, and Congress. No doubt Smith has in mind officials who intervened on behalf of troubled S&Ls, but a serious investigation would find that fraud and corruption played a minor role. On May 28, BUSINESS WEEK reported that fraud is "not as important as many people think" but could be responsible for $15 billion in losses—10% to 11% of the current loss estimates. Instead, the S&L fiasco was the direct result of legislation supported by Congress, the executive branch, and the regulators themselves.

S&Ls, with liabilities payable on demand and assets with 30-year maturities, were vulnerable from their beginning. The rising inflation of the 1970s and the abolition of interest-rate regulation made their weakness clear. Congress responded to the untenable situation with legislation that guaranteed failure.

RISKY BUSINESS. In 1980, the ceiling on insured deposits was raised to $100,000, which made it possible for troubled S&Ls to attract brokered deposits from outside their localities by bidding up interest rates. The higher cost of deposits led the S&Ls into higher-paying, but riskier, investments that were beyond the skills of managements accustomed to making mortgage loans on the local real estate market. Soon, there were more endangered S&L deposits than money in the insurance fund to pay off depositors.

Embarrassed, the government rushed into legislation to get the crisis behind it. In the spring of 1989, the Financial Institutions Reform, Recovery & Enforcement Act (FIRREA) was signed into law. Individually, the bill's measures made sense, but as I predicted at the time, together they had unintended consequences and worsened the crisis by compounding losses and multiplying the number of troubled S&Ls. FIRREA forced thrifts to rapidly increase their capital base, while simultaneously cutting their profitability (a main source of new capital) and making them less attractive to potential acquirers. Indeed, the legislation stripped the thrifts of all the features that had made them attractive to commercial banks and, therefore, greatly reduced the value of S&L charters.

In his testimony before the Senate Banking Committee on May 23, and before the House Banking Committee on June 14, Treasury Secretary Nicholas F. Brady admitted that thrifts "are not as attractive a franchise relative to banks as they once were." He conceded that the depository institutions "that we expected would be the primary purchasers of thrift deposits and thrift assets" were "much more leery" about buying. And FIRREA helped produce "not only higher-than-expected losses but also an increase in the population of savings and loans that will require attention."

Specifically, Brady reported that there are 299 S&Ls, with assets of $193 billion, that are likely to join the government's current pot of 423, and "another 3[illegible] thrifts, with $152 billion in assets, [illegible] which the future is uncertain." FIRREA not only piled up insolvent S&Ls in the government's hands but also maximized the losses by forcing thrifts to sell off their high-yield bonds and, in the meantime, to carry these assets on their books at market value.

PUNITIVE TAXES. This, of course, immediately depressed the market for junk bonds and shriveled S&L assets. Simultaneously, the government further damaged the high-yield market by prosecuting those essential to its operation. Within the first year of the "remedial" FIRREA legislation, the S&L problem had doubled or tripled in size.

While brewing this crisis, the government was also busy at work making sure that foreign buyers would find U. S. real estate assets unattractive. In 1980, in an outbreak of foreigner-bashing, the Foreign Investment in Real Property Tax Act overrode tax treaties to impose new punitive taxes on foreigners who purchase U. S. real estate. In 1989, additional punitive measures were added that deny the interest deduction to U. S. subsidiaries of foreign corporations that borrow from the parent company to finance the purchase of U. S. real estate. A new bill introduced by Representative Dan Rostenkowski (D-Ill.) and Representative Richard A. Gephardt (D-Mo.) would have the effect of doubling the taxes on foreign purchasers of U. S. real estate. Consequently, foreigners bid on the government's mounting inventory of real estate, they will underbid in order to compensate for the taxes, thus adding to the losses.

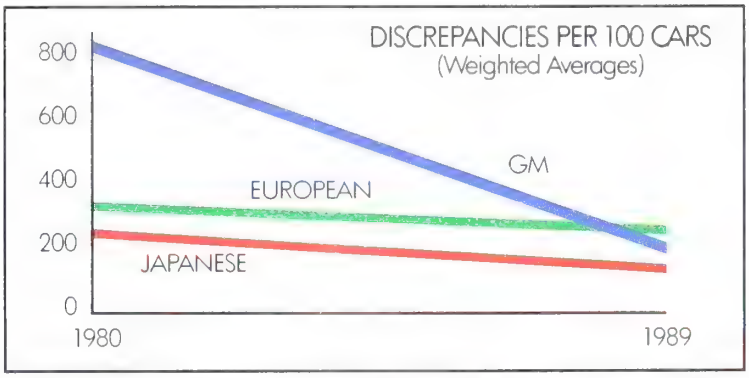
Congress now wants to add to the cost by creating special prosecutors, who operate on an open-ended budget. If the $25 million legal bill run up by Iran-*contra* Special Prosecutor Lawrence Walsh is any indication, the cost of the S&L fiasco could be much higher.

YOU ASKED US TO CHANGE MORE THAN JUST THE LOOKS OF OUR CARS AND TRUCKS. AND WE HEARD YOU.

We've introduced 77 new models since 1985, dramatically improving almost all the cars and half the trucks we make. The looks are new, of course, but the big improvements are in the heart of our cars and trucks—in the engines, transmissions, and electrical systems.

Quality That Lasts

According to one quality survey by Harbour & Associates, GM vehicles are better built than the average European import, and the difference between GM and the average Japanese import is less than one-half of one discrepancy per car. Other studies confirm GM's improvement.



You can count on GM cars for the long term. When J.D. Power studied the dependability of 1985 models, GM was ranked highest in vehicle dependability among all American manufacturers.* No other U.S. carmaker has done the job better in the last five years.

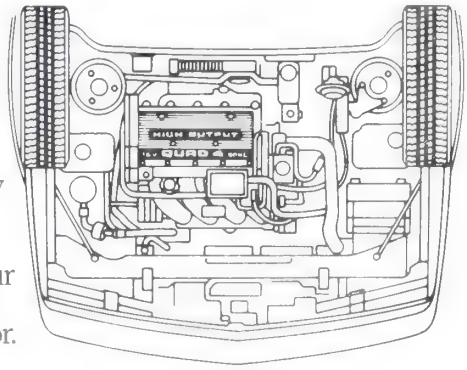
What does this kind of quality mean to our customers? Just ask. After six months of ownership, at least 95% of all Chevrolet, Pontiac, Oldsmobile, Buick, Cadillac, or GMC Truck owners would recommend a vehicle from that division to a friend.

(*J.D. Power and Associates Vehicle Dependability Index Study.℠ In a ranking of the three domestic manufacturers, based on things gone wrong to 4-to-5-year-old 1985 model vehicles in the past 12 months.)

Dependable Engines

GM's engines are more dependable than those of all other domestic carmakers. Our 3800 V-6 is at the top in engine quality among engines from all makers, foreign or domestic, according to the most comprehensive customer-based survey in the auto industry.

In the latest evaluation of 1989 engine quality, the 2.3-liter Quad 4 was as problem-free as 2-liter engines from Toyota or Honda after 3 months' ownership. In the latest survey of a full year of ownership (for 1988 models), Cadillac owners reported fewer engine problems than Toyota or Mercedes-Benz owners, a tribute to the 4.5-liter V-8 engine. In 1990, we're dedicated to delivering the quality you demand.



Problem-free Transmissions

Any car or truck is only as reliable as its transmission. Our automatic transmissions are more problem-free than those of most imports, and more problem-free than any domestic competitor.

We Care About You

Today there is a new pride at GM. A new commitment to quality. A clear focus on our customers and on their needs.

People throughout General Motors, the GM Quality Network, are dedicated to continually improving our vehicles. Year after year. Until every model is as good as the best in the world.

All of GM going all out for you.

PUTTING QUALITY ON THE ROAD

GM

MARK OF EXCELLENCE

Chevrolet Pontiac Oldsmobile Buick Cadillac GMC Truck

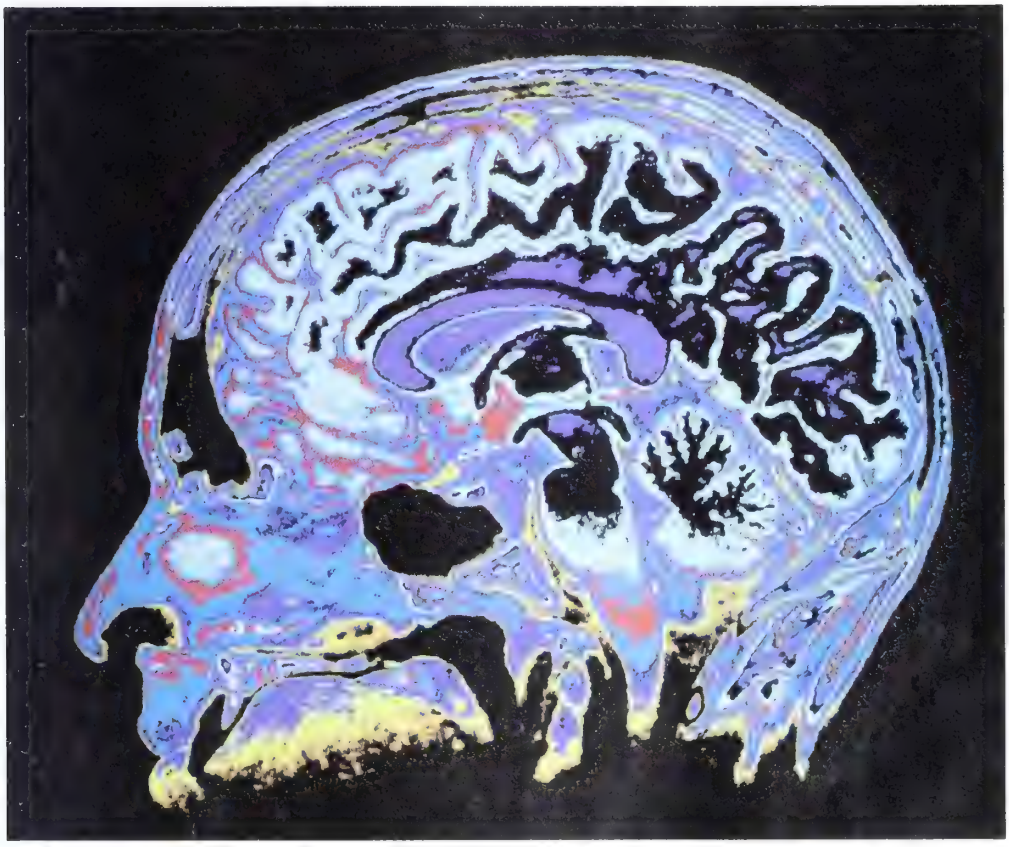
SIEMENS

1895. That was then.

Working in a small laboratory, Wilhelm Roentgen made the world's first x-ray images. Working with him, Siemens patented and manufactured the world's first x-ray tubes.

© Siemens Corporation 1990

1990. This is now.



This modern magnetic resonance image lets doctors see into the human body more clearly than ever before. It is a product of years of Siemens investment in research and development. Happily, you don't have to be a scientist to appreciate the results. Doctors, hospitals and clinics throughout America are giving their patients better care because of Siemens advances in many forms of diagnostic imaging, including ultrasound, magnetic resonance, nuclear imaging and computed tomography. And that's the kind of result we can all feel good about. **Siemens. Precision Thinking.**

For more information, write for *Siemens '90* Box 8003M, Trenton, New Jersey 08650

Automation Automotive Electronics Electronic Components Energy Graphic Systems
Information Systems Lighting Systems Medical Systems Power Generation Telecommunications

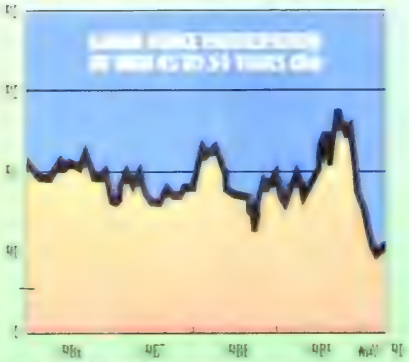
Economic Trends

A WORKER EXODUS THAT COULD WEAKEN PRODUCTIVITY

A [illegible] recent data on the labor-force participa[illegible] [illegible] ployed or seeking work, fell precipitous[illegible] [illegible] occurring at a time when the percentage [illegible] force has remained steady.

[illegible]

MIDDLE-AGED MEN ARE LEAVING THE WORK FORCE



▲ PERCENT OF TOTAL AGE GROUP EMPLOYED OR SEEKING WORK

DATA: LABOR DEPT. DONALDSON, LUFKIN & JENRETTE SECURITIES CORP.

[illegible] payroll employment has actually been [illegible] ment packages and severance pay. "Many of these men may be ineligible [illegible]

[illegible] pay and benefits received by older workers [illegible] workers to work hard so they can advance and eventually earn the status [illegible]

[illegible]

CONSUMERS ARE CONSUMED WITH PAYING THEIR DEBTS

C[illegible] [illegible] a record peak of 2.82% in the third quarter of last year. While the latest reading [illegible]

[illegible] Association of America reports that mortgage delinquency rates on one- to four- [illegible] 4.41% in the first quarter of this year. That's the lowest delinquency rate since [illegible]

[illegible] that began in 1985. Notwithstanding [illegible] continuing housing slump, falling de[illegible] quency rates suggest that fears [illegible] wholesale collapse in home prices [illegible] still exaggerated.

GAS PRICES WON'T UPSET DRIVERS THIS SUMMER

G[illegible] they actually declined last year and [illegible] Brian M. Jones of Salomon Brothers Inc., who notes that profit margins [illegible] gasoline realized by refiners recently [illegible] an eight-year peak.

Lured by the prospect of [illegible] profits, refiners have rushed to [illegible] year. As a result of the sudden surge [illegible] output, refiners' gasoline tanks are ov[illegible] flowing, and the wholesale price of [illegible] leaded gasoline has already fallen [illegible] in the past two weeks.

[illegible] pump prices are [illegible] down, not all of the decline in wholesale prices will be felt by consumers. Refiners will restore some of their margins that were eroded by an earlier spring surge in wholesale prices, and state gasoline taxes are rising. Still, Jones [illegible] the gasoline price drop will [illegible] about [illegible] from the annual pace of [illegible] sumer inflation in the third quarter.

THE CREDIT BLUES HAVEN'T HIT SMALL BUSINESS

R[illegible] companies in regions such as New England are finding loans harder to g[illegible] [illegible] any serious reduction in credit availab[illegible]

[illegible] paying a higher price for credit, and [illegible] concerns as government regulations. [illegible]

© Eastman Kodak Company, 1990

Kodak copier representatives will do whatever it takes to guarantee your total satisfaction with Kodak copiers, people and service. Whatever it takes.

Nobody's ever offered a copier guarantee like this. But then nobody else has copiers like the award-winners from Kodak. Nobody has Kodak's heritage of quality products and caring people—plus the best service in the business! So we can confidently offer to do whatever it takes to make you a totally satisfied Kodak copier customer. Because, chances are, we're already doing it.

Put us to the test. We're not all as limber as the guy above, but every one of us is an expert at satisfying customers. For details, call 1 800 255-3434, Ext. 154.

THE BEND OVER BACKWARDS COPIER GUARANTEE FROM KODAK

Kodak copiers. Ask any customer.

The Frequent Traveler

A Special Advertising Section in Business Week.

Where 7.1[1] million on-the-go business travelers all come together -- the largest, most affluent travel marketplace of any general business magazine.

Every year Business Week's top-management readers enjoy informative and entertaining Special Advertising Travel Sections edited by Steve Birnbaum, America's foremost travel writer and commentator. The entire section, with ads included, will appear again in ASTA Agency Management magazine -- a bonus audience of 30,000 travel professionals.

All at regular Business Week rates!

Plan to be there: Issue Date: September 24, 1990
Closing Date: August 13, 1990

Issue Date: November 26, 1990
Closing Date: October 15, 1990

Please call: John Holden, Market Manager
Travel Advertising 212-512-6394

[1]Source: SMRB 1989 BW Estimate

BusinessWeek
THERE IS NO SECOND PLACE

THE SOUNDS OF SILENCE

Fedders room air conditioners. The art of quiet
From lightweight "Pick-up" portables to large capacity models - in cool only or heat/cool styles you can install in any window or through any wall - Fedders has the quiet, quality air conditioner just right for you. For the name of a Fedders dealer near you, call us at 217/342-3901.

You can't do better than a Fedders.

EVEN
ON BUSINESS,
YOU CAN
EXPERIENCE
BEAUTIFUL
SETTINGS.

CLUB

From the comfort of your seat in Club* Class, you'll enjoy an unobstructed view of stylish glassware, elegant cutlery and Royal Doulton* china. And suddenly, business travel takes on a whole new perspective.

BRITISH AIRWAYS
The world's favourite airline.

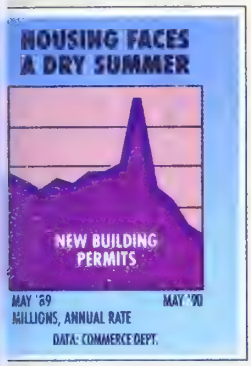
LY 2, 1990

BY JAMES C. COOPER AND KATHLEEN MADIGAN

'HE EXPANSION GOES ON THE CRITICAL LIST

The U. S. economy is crying for help. Consumers are struggling. Manufacturing is barely afloat. Businesses are trimming their spending plans as prof- continue to slide. Construction is in a nosedive. And fense cutbacks are hitting home.

All this makes the second-half outlook pretty dim. ide from exports and services—both of which have wed during the past year—the economy has barely ough buoyancy to keep from sinking into a recession.



The current woes are the most pervasive in the expansion's 7½-year run. In the second quarter, consumer spending on goods, homebuilding, business construction, and defense were all below where they were in the third quarter of last year. That's 45% of real gross national product. Simply put: Nearly half of the economy is already in a recession. That makes the pansion especially fragile, particularly since Federal eserve Board policy remains relatively tight.

Housing is already in deep trouble. New homes aren't lling, so builders aren't building. Housing starts fell 1% in May, to an annual rate of 1.21 million—the west since October, 1982, when the economy was in a cession. Applications for new permits show the same smal pattern (chart). That means the important sum- er building season is shaping up to be a bust.

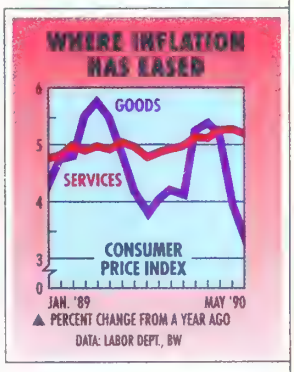
Homebuilding and other interest-sensitive sectors will main soft in the second half. The Fed is unlikely to cide to push interest rates lower at its policy meeting July 2, because there is little evidence that past ghtening of policy has cut into inflation. But with the onomy so weak, aggressive Fed easing later this year ay be necessary to avoid a recession.

SERVICE PRICES SHOW NO MERCY

Clearly, the Fed faces some tough decisions. The recent performance of the price indexes shows that getting inflation lower will be a slow and painful process. e latest easing in the pace of consumer prices reflects reversal of the temporary influences in energy, food, d clothing that set inflation soaring earlier this year. eanwhile, the core rate of consumer inflation—which nores the short-term volatility caused by food and en- gy—remains stubbornly high.

The consumer price index rose a modest 0.2% in May, e same as in April. Energy prices fell sharply, food prices were unchanged, and the remaining CPI rose only 0.3%. Over a longer period, though, the trend of the core rate of inflation—about 76% of the CPI—is less encouraging. During the past year, core inflation has held at 4.8%—no different from a year ago. Excluding the ups and downs in prices of food and energy, inflation isn't getting worse, but it's not getting any better.

Service inflation is still the problem, while goods prices provide the moderation. The reversal in food and energy prices shows up in the recent tracking of goods prices, which are up only 3.3% from a year ago (chart). But service inflation—half of the CPI—is 5.2% and shows no signs of abating. That pattern will continue.



Pushing service inflation below 5% will be difficult. Service prices have risen 5% to 6% in each year of the expansion, and underlying cost pressures argue against a lower reading for 1990. Unit labor costs in services are rising more than 5% annually, and despite consumers' weaker spending on goods, their demand for services appears to be intractable. That allows service producers to pass along those higher costs.

Meanwhile, inflation in producer prices has eased significantly. Prices for finished goods rose 0.3% in May, and only 0.2% excluding food and energy. During the past year, overall finished goods prices have risen 3.1%, down sharply from 6.2% during the previous 12 months. And the core rate is the lowest since August, 1988.

The Fed will have to hope that weakness in the goods-producing sector will eventually spill over to services, easing those cost and price pressures. So far, softness in the industrial sector has slowed service employment but not enough to restrain labor costs.

The rub: Getting inflation down in the service sector may well require more weakness in the goods-producing sector than the economy can withstand.

SPRING LEAVES MIXED OMENS

Manufacturing is already struggling. The spring months did bring some pep to the factory sector, but that probably won't last. Exports are providing much of manufacturing's support, but they aren't growing as fast as they did in 1989. Domestic demand is just plain weak.

Industrial production rose 0.6% in May, and output in manufacturing rose 0.8%. But factory output has grown only 1.3% in the past year, a considerable slowdown from

ERIC HOFFMANN/BW

its 3.8% pace during the previous 12 months (chart).

The May gains show that the recession in manufacturing may well be over, but the recent weakness in spending for houses, cars, and consumer goods in general means the factory sector will be hard-pressed to do much more than tread water for the rest of the year.

A rebound in auto production—from dismal to merely weak—accounted for a disproportionate part of the May increase. Excluding car assemblies, factory production rose only 0.4% in the month. Carmakers plan higher production levels in the second and third quarters, compared with the first quarter, and that should help keep overall production moving forward. It will also help growth in real GNP, as cars boost inventory growth.

Still, auto makers are suffering. Car sales show no signs of picking up. So far this year, Detroit has made new cars at an annual rate of 5.8 million, a steep 20.6% below the pace of 1989. The industry's plans for the middle two quarters show output running well ahead of current sales. That could set up yet another inventory problem by yearend.

Construction-material suppliers are hurting because of the recessionary levels of housing and office building. And many areas that depend on the defense industry are starting to feel the budget knife (page 64).

The spring pickup in the industrial sector isn't likely to fuel inflation in goods prices. For one thing, capacity use hasn't risen enough to raise price pressures. In May, total operating rates edged up to 83.6%, from 83.3% in April. Factories used 83% of capacity in May, slightly ahead of April's 82.6% rate.

In addition, manufacturers have been lifting output while cutting payrolls. That suggests that productivity gains might be quite strong in the second quarter, an unit labor costs in manufacturing could decline.

Output is still growing at a fairly healthy rat computers, aircraft, chemicals, and machinery. Not u prisingly, these industries are also among the leade the growth of exports. But even foreign demand i pering off. In April, exports slipped 3.5%, to $32.3 bi That's only 4.3% above year-ago levels—the wea annual pace in more than three years.

U. S. exporters have been most successful in ship to Europe, but maintaining this robust pace will be d cult. A weaker dollar will help, but the growing s gishness in the British and French economies will li And demand growth from Eastern Europe will be s to develop. U. S. exports to those countries hav grown by much in the past year.

ONE THIN SILVER LINING

The good news for the trade defic that import growth is also declining, result of sluggish demand in the U. S. April, imports fell 6.2%, to $39.2 bil and now stand just 1.6% above their level of a y earlier. The slowdown is widespread, as both busine and consumers scale back their spending.

The declines in both imports and exports caused April trade deficit to narrow to $6.9 billion, from 3 billion in March. So far this year, the trade gap a improved by $3.2 billion, or 10.1%, over the first months of 1989.

The lower deficit in April suggests that net exp could be a positive contributor to second-quarter gro in real GNP. But that and the auto-driven turnaroun inventory growth are likely to be the quarter's o sources of strength.

For now, that's O. K. with the Fed. The central b seems content to let sluggish growth wrestle infla into submission. The problem: Inflation shows few si of giving up, but the economy is already crying un

THE WEEK AHEAD

LEADING INDICATORS

Wednesday, June 27, 8:30 a.m.

Most economists expect that the composite index of leading indicators increased by a strong 0.6% in May, according to a survey by MMS International, a division of McGraw-Hill Inc. In May, higher stock prices, fewer unemployment claims, a longer factory workweek, higher materials prices, and slower delivery times offset a drop in building permits, a decline in the money supply, and falling consumer expectations. The leading indicators declined 0.2% in April and have gone virtually nowhere so far in 1990. The expected May gain would push the index 1.1% above its level of May, 1989, the largest 12-month gain in more than a year. A sustained rebound in the index would indicate that economic growth may begin to pick up in 1991.

INITIAL UNEMPLOYMENT CLAIMS

Thursday, June 28, 8:30 a.m.

New claims for state unemployment insurance benefits were likely filed at an annual rate of 360,000 for the week ended June 16. That's just slightly above the 350,000 pace for the week ended June 2. Despite the low unemployment rate nationwide, jobless claims have been relatively high so far this year because of layoffs in manufacturing. As the economy continues to weaken in the second half, insurance claims will probably rise, putting added pressure on already strained state budgets, especially in the Northeast, where jobs have been cu a fairly rapid rate.

NEW SINGLE-FAMILY HOME SALES

Friday, June 29, 10 a.m.

New homes in May probably sold a annual rate of about 540,000, down f their 546,000 pace in April, which the slowest sales rate since the 198 recession. The drop is suggested by 1% fall in single-family housing start May. In addition, higher mortgage ra soft resale prices, and stricter lend requirements are holding back the housing market. Sales of new homes already running about 9% below t pace of a year ago, and there is litt suggest that the second-half per mance will show much improvement

ERIC HOFFMANN/BW

If you ever need help, nobody answers the phone better than we do.

With the new *AT&T Universal Card*, wherever you are you'll receive the same high standards of responsive, quality service you expect from AT&T—24 hours a day, 365 days a year. The *AT&T Universal Card*. All the benefits of AT&T worldwide connections and service, plus the purchasing power of MasterCard® or Visa.® To apply, call toll-free: 1 800 662-7759.

One World. One Card.℠

© 1990 AT&T

Universal Bank, Columbus, GA

WALL STREET

STOCK AROUND THE CLOCK

THE NYSE PLANS AFTER-HOURS TRADING—WITH OTHER EXCHANGES IN PURSUI

If you get your best investment ideas at midnight, soon you may not have to wait until morning to put them to work. The New York Stock Exchange plans limited after-hours trading later this year with the idea of building up to round-the-clock operations by 2000. Likewise, the American Stock Exchange, the Chicago Board Options Exchange, the Cincinnati Stock Exchange, and Reuters Holdings PLC have teamed up on an electronic network that would allow trading while those exchanges are closed. They hope to have it running by 1992.

The 24-hour market isn't a new idea, but the NYSE's outline for reaching into other time zones brings the concept closer to reality. The technology is already here. Now, it's a question of who controls it. Indeed, the stock exchange of the 21st century may be computer screens and networks between them.

The Big Board's bold stroke is in part defensive: Its market share has been eroding (chart). So far this year, the Big Board has captured only 67.7% of trades done in the U. S. Overseas trading of big-capitalization U. S. stocks is estimated to account for an additional 10 million to 15 million shares in daily volume.

By itself, the AmEx-CBOE-Cincinnati venture may not be much competition for the NYSE. But when it is linked to Reuters, their bid to create a global electronic trading network becomes immediately credible. Reuters, the British news-wire service, has transformed itself into the world's pre-eminent supplier of financial inform tion. It boasts 200,000 terminals trading desks around the world and h come up with technology enabling it go from supplying information to allo ing traders to actually execute orders their terminals—thus supplanting t work of an exchange floor.

Electronic trading systems open new revenue sources Reuters, which w charge users both f computer terminals a for each transaction. Th summer, a new versi of Reuters' Dealing 20 service will create t first fully automat market for foreign e change. And by yearen Reuters hopes to sta

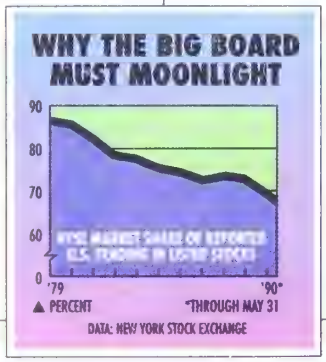


ILLUSTRATION BY RUSSELL C. MINKS; CHART BY ERIC HOFFMANN/BW

›bex, a similar system for futures ›ding, developed with the Chicago ›rcantile Exchange and the Chicago ard of Trade. No wonder Reuters' ›ck is hot: American depositary re- pts of Reuters, traded in the U. S., are 33% so far this year.

And no wonder both the NYSE and uters are trying to act like winners. ›s John S. Hull, executive vice-presi- ›t of Reuters America: "This is not a ›llenge. It's a plea for them to join " He shouldn't hold his breath. "We eady have the most technologically ›anced and cost-effective trading sys- › in the world," says Richard J. Tor- ›zano, an NYSE senior vice-president. 's unnecessary to build another."

ST FEES. Although it would be possible U. S. investors to trade in the wee ›rs, the thrust of off-hours is the ›wing market in U. S. stocks abroad. ›s John N. Tognino, a managing di- tor at Merrill Lynch & Co. in London: ou want to buy IBM? We'll sell you ›. It doesn't matter whether it's New rk, Tokyo, or London." As the world ns, big brokers simply "pass the ›k" to their desks in the next time ›e. And when IBM trades elsewhere, Big Board doesn't get its cut.

Today's 24-hour stock market remains ›atchwork of exchanges, and liquidity limited. In Tokyo, the stocks of 70 S. companies are traded, with a nthly dollar volume of about $546 mil- ›. In London, 164 U. S. stocks trade, only about one-fourth are active. In y, the dollar volume of U. S. stocks s $2.6 billion, up fourfold from May, 8. Still, that's barely a half-day's vol- e in New York. Starting on Sept. 1, National Association of Securities alers will open its electronic trading ›tem in London, which nearly doubles › trading day for U. S. over-the- ›nter stocks. The market envisioned the Big Board and Reuters would ›ntually corral all after-hours trading ›der one umbrella.

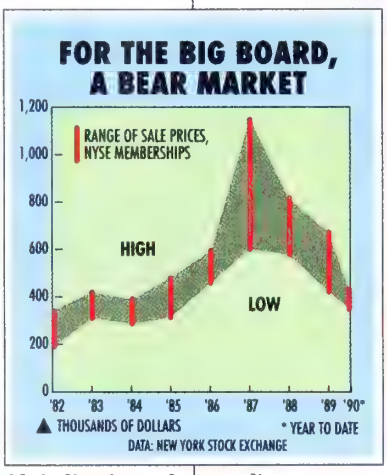
Traders and money managers in Asia › Europe—whom the off-hours sys- ns need to thrive—aren't over- elmed by the news. "It's not the real rket," says Mitsuyuki Kawai, deputy nager of foreign equities at Nikko ›curities Co. "Investors like to buy and › while watching the market." Indeed, ›ny foreign institutions prefer to trade New York even when a U. S. stock is ›ilable locally.

The first phase of the NYSE after- ›rs trading plan could be in place by ›rend. That would include "crossing" des—where the buyer and seller are eady matched up—through the Big ard's computers and rolling them into › day's trading statistics. Another fea- ›e would allow brokers to record pri- ›ely negotiated program trades, the

IF THE BIG BOARD WERE A COMPANY, WOULD SHAREHOLDERS BE HAPPY?

William J. Burke III is the proud new owner of New York Stock Exchange Badge No. 609—signifying the membership, the "seat" on the exchange, that gives him the right to buy and sell stock on its floor. The price: $410,000. When the bull market was raging in 1987, the same badge cost as much as $1 million. This year, memberships have fetched as little as $351,000. Burke is not dismayed. "I think I've gotten a bargain," he says hopefully.

If the NYSE were a public company, Big Board members such as Burke would be the shareholders—and his "stock" would be considered a chancy play at best. The price of Big Board seats has declined to its lowest level since 1985 (chart), in what is probably the most vivid indication of the ebbing fortunes of the nation's premier financial marketplace.



'WHITE HAIR.' The exchange's worries aren't all that different from those of the Big Board's more mature companies. Trading volume is declining, the NYSE's financial picture is cloudy, and competition is looming—from overseas and from regional U. S. exchanges. Meantime, the exchange's leadership is in transition: Chairman John J. Phelan Jr. is retiring at yearend. The continuing troubles at the corner of Wall and Broad hardly ease the hunt for a successor. "Who needs that kind of grief?" sighs a senior industry executive. "The kind of 'white hair' that [the NYSE] is looking for isn't going to want any part of it."

For the NYSE, the main source of grief can be summed up in one word—volume—as the exchange loses crucial institutional business to overseas bourses. Even though the Dow Jones industrial average gained 32% last year, that didn't spark enough trading to offset the flow of business overseas. Volume was up a mere 2.5%. By contrast, the American Stock Exchange saw its trading volume rise almost one-quarter last year, while NASDAQ over-the-counter volume gained a healthy 15.5%. So far this year, the picture has grown bleaker, even as the Dow has surged to all-time highs. NYSE volume is down 7%, while NASDAQ volume gained 5% and the Amex is up 20%.

Interestingly, much of the Amex gain stems from a product that appeals to individual investors: warrants that bet on the Tokyo stock market. By contrast, the NYSE has seen its institutional franchise slip away without hot-selling new products taking up the slack. An NYSE spokesman, Richard Torrenzano, says that the decline in NYSE volume is consistent with the reduced activity in the securities industry. "It's no secret that business is not at the levels of previous years," he says.

With trading on the decline, revenues have failed to keep up with costs. The exchange has continually upgraded its trading systems since the 1987 crash, contributing to a 12% gain in expenses in 1989, vs. revenue growth of 8%. The NYSE's aftertax earnings, which peaked at $34.1 million in 1987, declined to $10.4 million in 1988 and $6.3 million last year. In the first quarter of 1990—a period when many brokerage firms enjoyed a surge in trading profits—the NYSE's net income dropped to $5.6 million, vs. $6.2 million a year ago. The exchange insists that it is keeping costs in line, noting in its first-quarter report that "effective management of costs has been a key element of the performance during the first quarter of 1990 and will continue to be so going forward."

Of course, earnings declines are far less consequential to a stock exchange than they would be to a public company. The decline in seat prices is a lot more troublesome, but the cost of a seat on the exchange may be bottoming out. "You have a lot of seats from Drexel being sold, and that's been a deterrent on the price of seats," notes Leslie C. Quick III, president of discount broker Quick & Reilly Group Inc. But as long as competition continues to cut into the NYSE's franchise, exchange-seat prices will continue to decline—along with the exchange's fortunes.

By Gary Weiss in New York

LAUREL DAUNIS/BW

only record of which now shows up abroad. Austin George, chief of equity trading at T. Rowe Price Associates Inc., thinks bringing those trades back into the public market should give investors a better picture of prices and trends. "An increasing amount of trading never sees the light of day," he notes.

Then, in 1991, the Big Board would open its computers for trading three times during the off-hours: at 8 p.m. EST, when Tokyo opens for trading; midnight; and 5 a.m., when London kicks in. Buyers and sellers could then enter their orders and prices for any NYSE stock, and the computer would match them up. Known as a "single-price auction," the practice is similar to how the exchange opens trading every day. Should demand warrant it, the system could be expanded to some continuous trading. Ultimately, the NYSE could work round the clock.

SMALLER MENU. At first, the Reuters-led system would offer trading continuously from 6 p.m. to 6 a.m., New York time. But it would start with a far smaller menu of offerings, mainly the popular stock-index options and index warrants. Listings would expand as demand increased, and the system could allow other exchanges to bring their markets in.

The biggest fight over after-hours trading may not be over borders or between exchanges but within the NYSE. Some floor brokers, who literally run orders from post to post, fear an off-hours automated system will displace them. "How do you make sure they turn it off at 9:30 a.m.?" asks William Higgins, an NYSE floor broker. In the past, Chairman John J. Phelan Jr. smoothed feathers ruffled by modernization. But Phelan retires at yearend, and no successor has been named (box, page 31).

There's reason for denizens of exchange floors to worry. Trading at the venerable Stock Exchange in London has retreated to upstairs trading rooms. New exchanges are starting with computer-based trading systems, and older ones are also turning that way. Even the Tokyo Stock Exchange trades all but the 150 most active stocks on computer screens. Says Jeffrey R. Knight, former CEO of London's stock exchange: "Floor trading is not a market for the future."

What is? Leo Melamed, chairman of the executive committee of the Chicago Merc, envisions an all-powerful global trading system that brings stocks, options, and futures together on a single screen. But first, today's investors have to become convinced that 24-hour electronic trading is what they want.

By Jeffrey M. Laderman in New York, with Mark Maremont in London, Karen Lowry Miller in Tokyo, Blanca Riemer in Paris, and Julia Flynn Siler in Chicago

Commentary/by Dean Foust

THE SEC IS RELAXING—SO INVESTORS SHOULD BE NERVOUS

For nearly six decades, the Securities & Exchange Commission's mission has been the zealous protection of investors. Its strategy: guard against investor rip-offs by demanding maximum public disclosure by sellers of stocks and bonds. But now, the agency's emphasis has changed—perhaps not for the better. The growth of global trading has heightened the need for streamlined securities regulation and prompted the agency to loosen a host of disclosure safeguards in the name of competitiveness. In the process, the SEC's credo appears to be changing from investor vigilance to *caveat emptor*.

Consider these recent actions:

- In April, the SEC approved new rules that make it easier to trade unregulated, privately placed securities. These changes should make the U. S. more attractive for foreign companies seeking to borrow money and should cut capital costs for U. S. companies, too.
- A pending proposal would ease the ability of U. S. and Canadian companies to stage cross-border offerings—a move that's expected to be extended to other countries. Many Canadian companies could qualify largely by meeting domestic standards, which are seen as less stringent than those in the U. S.
- Under Chairman Richard C. Breeden, the SEC has relaxed registration rules for companies such as Attwoods PLC, which wanted to offer European securities to U. S. investors.

'THE DIRTY END.' Now, the SEC faces yet another test: the proposals by several of the nation's largest exchanges to move toward 24-hour trading. The commission will be under pressure to approve these ventures—even though the exchanges, investment firms, and the agency itself may not have the resources to monitor closely the increased trading volume.

The SEC's motive—to ease the transition to global trading—is a good one. What troubles critics is its willingnes to tamper with the stringent reportin standards that have long been the ha mark of the U. S. capital market Even Canadian laws, considered mo like the U. S.'s, don't require the sam disclosure in such key areas as pensio reserves. "Investor protection is bein sacrificed," charges Anthony T. Cop senior vice-president at Wellingto Management Co. "There is a real da ger that the U. S. i vestor is going to b left with the dirt end of the stick."

One worry: Unde the new private-place ment rules, securitie reliant on dubiou foreign accountin practices could reac the U. S. "This typ of back-door entr into the U. S. marke is going to be an inv tation to individual who can buy account ing opinions mor readily overseas," says Richard C. Leh mann, president of th Miami Lakes (Fla.)-base Bond Investors Assn.

The premise of the private-placemen rule is that big investors possess th sophistication and clout to get the in formation they need. But that isn't al ways the case. Some large junk-bon holders are complaining about domes tic issuers using an SEC loophole t pinch the information flow—often jus as their fortunes sour. Using a rul that exempts companies with fewe than 300 security holders from disclo sure, some companies aren't providing data to bondholders, analysts, and pro spective investors.

The SEC seems worried that main taining U. S. standards will drive busi ness offshore. Perhaps. But critics sai the agency's insider-trading crackdow would do the same. Instead, othe countries are adopting the U. S. model As the SEC considers reciprocal securi ties pacts with other nations, it shoul keep that precedent in mind. I changes are needed, let other countrie rise to the level of the U. S. markets.

HE PILOTS AT AMERICAN RE UP—IN ARMS

ıey claim Crandall is paying for his expansion with their salaries

n an industry often rocked by labor turmoil, American Airlines Inc. has been an enviable standout. Hard-driv- Chairman Robert L. Crandall won ımatically reduced pay scales for new ›ts in 1983—and he did it without a ike. Four years later, he pushed ough major changes in work rules to l the company's growth.

3ut matters aren't going so smoothly current contract ks with his pilots. ion leaders charge t stingy pay-and- nefit proposals ıld backfire on the ion's largest and st profitable carri- Already, some gruntled pilots m to be delaying ghts by working ictly by the book, ping push Ameri- ı into the No. 9 ›t on the Trans- tation Dept.'s list on-time perfor- nce for airlines in ırch and April. e company was . 7 in February l No. 2 in the last arter of 1989. Al- ›ugh American blames congestion and ›r weather, management says it's sely monitoring pilot performance. In company that hasn't had a big fight h its pilots for years, "this is a classic or dispute," says Harry Bickford, the leral mediator called in to the talks.

IE ELEMENT.' At the heart of the battle ın unusual argument Crandall has put th. Yes, he says, the company pays s than its major rivals for most pilot sitions (table). And the company's new ›posals won't bring American up to rity. But Crandall says American's ›id expansion will create more pilot s than other carriers. Thus, his pilots ı move up to higher-paying captains' s faster than folks at other airlines. ıen you add benefits, American pilots l earn as much as their counterparts the long run. "We have always said 'market rate' is the total compensa- n package," says Ralph P. Craviso, nerican's vice-president for employee ations. "Pay is only one element."

American pilots don't buy that logic. They concede that the carrier has more than doubled in size since 1983 by pouring billions of dollars into new hubs and planes. And American's planned $21 billion expansion over the next five years will add 50% more planes—and more pilots' jobs. But union officials say growth won't close the gap for everyone. "There is a tremendous number of tail-end Charlies who are going to sit in those low seats for years," says Richard T. LaVoy, vice-chairman of the Allied Pilots Assn.'s New York unit. And senior pilots believe they will fall further behind, too. Adds Douglas W. Walsh, chairman of the union's Dallas/Fort Worth unit: "Crandall told this membership he would pay market rates. Now he has changed the rules."

LaVoy (left) and other unhappy pilots say that new jobs created by growth won't close the pay gap with other carriers

When talks started last October, American hoped for a speedy settlement with the APA, which has represented American pilots since they broke from the national pilot's union three decades ago. But as a self-imposed deadline approached in January, the talks broke down. "We were just too far apart," says APA President Fred R. Vogel.

The two sides now are back at the table in Miami, this time with the help of mediator Bickford. But growing militancy among the union's board members could make the gap harder to close. The APA long has been a rather docile union. However, recent elections have brought to power directors who want a tougher negotiating stance. These self-styled "progressives," including LaVoy, say they can muster a majority on the APA's 23-member board.

FOOTING THE BILL. A majority would give them veto power over any contract that Vogel and his five-man bargaining team might bring back. The talks broke down in January in part because board members raised cain when Vogel told them what the company's latest offer had been. Some board members and rank-and-file pilots even complained about the APA's most recent counteroffer.

In some ways, the acrimony is the result of the two-tier pay scales that Crandall won in 1983. The idea of paying new employees less than current ones has been widely imitated since then. But today, nearly 60% of American's 8,500 pilots are on the lower scale. They feel that they've already had to foot the bill for American's growth. Now that they're in the majority, they want the same pension rate that first-tier pilots get. Currently, even when the lower tiers move up, they continue to get the lower-tier benefits. Vogel could have a hard time selling a new contract to his members unless this issue is addressed. "I think [Crandall] knows in a service industry that you have to address the concerns of the employees," says Dana R. MacKimmie, an APA leader in Raleigh, N. C.

Even the most militant pilot leaders say they doubt American faces a strike. But if Bickford can't bring the two sides closer together, he can declare a "cooling-off" period. After that, the company can simply impose its new contract on pilots. Crandall probably could get away with that if he wanted to play hardball. But for the first time in his tenure, he would have a lot of unhappy pilots on his hands.

By Wendy Zellner in Dallas

AMERICAN'S PILOTS' PAY: FLYING LOW

	Typical monthly pay Captains*	First officers**
AMERICAN	$9,399	$3,734
NORTHWEST	11,400	4,465
DELTA	11,519	4,220
USAIR	12,508	5,149

*On 727s, with 12 years' seniority
**On 727s, with 3 years' seniority
DATA: AIR LINE PILOTS ASSN.

EDINGER/GAMMA-LIAISON

COMPUTERS

COMPAQ'S CANION: "WE REALIZED WE WERE OPENING UP A WHOLE NEW MARKET"

COMPAQ'S MUSCULAR MINI ISN'T KNOCKING THEM OUT

Six months after the Systempro's ballyhooed debut, few have sold

Last November, when Compaq Computer Corp. announced its most powerful computer ever, the Systempro, Chairman Benjamin M. Rosen guaranteed it would "send shock waves through the industry." But six months later, Compaq's networking-computer entry is causing little more than a ripple.

Initially, Wall Street analysts figured Compaq would sell as many as 25,000 units in 1990. Through April, though, the company has moved just 1,745 Systempros in the U. S. (chart), estimates market researcher StoreBoard/Computer Intelligence. Compaq says worldwide sales so far are in the range of 3,500.

When Systempro was unveiled, it seemed to have a lot going for it. Compaq positioned the machine as a networking file server—the computer that acts as a storage unit for programs and data shared by desktop computers tied together on a network. That's a big market: File-server sales will climb about 39% this year, while PC growth rates could dip below 10%. Besides, the Systempro seems like a great value: The machine, while technically a microcomputer, is powerful enough to stack up against minicomputers from companies such as Digital Equipment Corp. and IBM. But it starts at just $16,000, thousands less than the average mini.

DAUNTING. So what's wrong? The greatest problem lies with Compaq's network of 3,000 computer dealers. They find the system's complexity daunting and tend not to deal with the kind of customer Compaq is aiming the machine at. That spells real trouble for a company that since its 1982 founding has relied solely on resellers. By contrast, IBM and most personal-computer makers split sales between a direct sales force and retailers.

Compaq's dealers are accustomed to selling $3,000-to-$5,000 machines. When fully loaded with items including extra memory, chips, and storage space, the Systempro can carry a price tag of as much as $230,000 and can require extensive training and support from the dealers. It also requires selling to high-level corporate customers than retailers are familiar with. "The majority of salesmen can't sell it," says Mark Cuba

BUSINESSLAND SEEMS STUCK IN NO-MAN'S-LAND

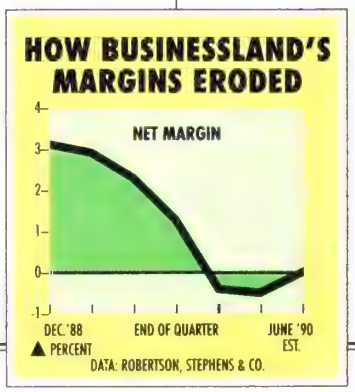
David A. Norman has had a hard time turning business goals into business reality. The founder and CEO of computer retail chain Businessland Inc. has long claimed his company would prosper by selling sophisticated personal computers backed by high-margin services, rather than by selling drastically discounted PCs. Businessland prospered, all right. Revenues climbed to $1.2 billion in just seven years. But while Norman was out talking up "value-added" services such as network consulting, the chain was raking in revenues the old-fashioned way—by offering big discounts on large quantities of IBM, Apple, and Compaq computers.

Now, as growth rates in the U. S. PC market dip to 10%, Businessland is stuck with a cost structure that's wreaking havoc on margins. After reaching an all-time high of 3.1% in December, 1988, net margins have evaporated (chart). The company has lost $2.9 million in the past two quarters and has laid off 7% of its 3,500 employees. Four top executives have left since October, and the stock is trading at about 8, down from a 52-week high of 13⅝. On June 15, Norman dismissed his two top marketing executives. "Management is out of control," says analyst Peter Rogers with Robertson, Stephens & Co. in San Francisco.

'BOX MOVER.' Norman's critics—of which there are now many on Wall Street—say that some fundamental changes are called for at the company, which boasts 109 outlets in 50 U. S. cities and five foreign countries. "The business model they have been pushing has failed," says Rogers.

The conflict between Businessland's stated strategy and how it actually operates wouldn't be such a problem except for one thing: The co spent the past year adding some sophisticated products and hiring paid sales and support personnel—ing dozens of technical employees vise customers—even as its stores ued their merry discounting ways either have to be the efficient mover with very low overhead, have to add a lot of value," says Yamada, an analyst with consultant rin Information Services Inc. in Pa Calif. "Norman is caught betwe strategies right now."

One flaw in N original plan was sumption that cu would be willing higher prices for ment—or separa sulting fees—for pertise of Busine staff, says Kevin thy, an analyst w bon Nugent & Co large buyers ha



PHOTOGRAPH BY KEN KERBS, LEFT BY ALBERTO MENA/BW

esident of MicroSolutions Inc., a resell- in Dallas which has so far sold 30 of e machines.

To lure buyers, many of the 500 or so mpaq dealers worldwide who are ac- ely marketing the Systempro are al- ady discounting it by as much as 40%. at threatens Systempro's premium im- e and makes it impossible for dealers offer the service customers need.

REALISTIC. Tardy software develop- ent hasn't helped either. A new, more werful version of Microsoft Corp.'s n Manager network- g program, for in- nce, won't be ready til July, instead of in e first quarter of 90, as Microsoft origi- lly promised. And an- sts figure it could be long as two years be- e users can find pro- ams that take full ad- ntage of Systempro's ltiple processors.

Still, if Compaq is rried, nobody's let- g on. "We realized we were opening a whole new market," says Joseph R. nion, Compaq's CEO. "We knew it uld take some time." Michael S. vely, president of Compaq's North nerican operations, says Systempro es are right on target and that he pects to sell only a few hundred a nth well into 1991. He blames unreal- ic expectations for the gloomy sales orts. "Some of our dealers anticipat- the Systempro would fly off the elves like a regular PC," Swavely says.

Compaq's primary competitor in the market, Netframe Systems Inc., has fared no better. It has sold fewer than 1,000 of its own machines since last November—about in line with its projections. Swavely also acknowledges that comparing the Systempro to a minicomputer confused customers, who weren't convinced they needed so much power.

The slow start for Systempro isn't bothering Wall Street: Trading at about 125, Compaq's stock is up almost 57% this year. Nor are analysts adjusting yearend estimates for the company, saying they think the machine could pick up speed in the second half of the year. They figure Compaq revenues will come in somewhere near $3.7 billion, up 29% from 1989, with earnings-per-share of $9.25, a 19% leap over last year.

Most analysts expect Compaq to put some added marketing muscle behind the machine. The dealers certainly have plenty of incentive to help make Systempro a success: Strong sales of Systempro will give a swift kick to sales of Compaq's less powerful PCs, since customers who buy a Systempro are likely to buy Compaq machines to hook onto the network. But after a string of overnight sensations, it appears that Compaq will have to learn the virtues of patience.

By Jim Bartimo in Dallas and Deidre A. Depke in New York, with bureau reports

experts. What they really wanted usinessland was low prices and delivery. The result: Businessland ot more than between 5% and 8% al revenues from selling its vaunt- ices, analysts estimate.

an's personal style hasn't helped In an industry that depends on interrelationships among suppli- resellers, the former Navy pilot loof. In April, 1989, Compaq Com- orp. pulled its products from Busi- d's shelves after Norman, 54, tried g-arm the PC maker into matching discounts he had extracted from ich were higher than the discounts ther retailers. Compaq returned to sland this spring, but the tempo- s hurt the company: Compaq sales ounted for 15% of Businessland's sales.

HARDWARE. By then, Business- ituation had deteriorated. Sales of h-end, powerful computers that sland has emphasized have been arly hard-hit. The company has ushing exotic workstations from Steve Jobs's Next Inc. as well as minicomputer-like products from NetFrame and Compaq. With sales of the new Next and Compaq machines far behind early projections, Businessland revenues are expected to grow a meager 1%, to $1.35 billion for the fiscal year ending June 30. Analysts say the company will break even for the year or show a slight loss.

The analysts have a daunting prescription: They say the company must focus its strategy, reduce management turnover, and more deftly manage its money-losing Computercraft unit, which it bought in 1988 to build a presence in the low- and mid-price market. Norman has made some effort: He has been trying to make himself more accessible to Wall Street, and he recently launched a joint venture in Japan to service multinational customers. "We didn't balance very well in the last fiscal year," Norman admits. "We made too much investment in some areas, but we'll make up for it in fiscal '91." That's the plan. Now, Norman just needs the reality.

By Barbara Buell in San Francisco

STRATEGIES

AIG'S HARD HAT MAY FIT JUST FINE

The insurer could have stumbled onto a good thing with Fischbach

Getting into the construction game wasn't what mega-insurer American International Group Inc. had in mind five years ago, when it started bonding projects for Fischbach Corp. But after a long liaison with Miami Beach (Fla.) financier Victor Posner and a slew of antitrust suits, Fischbach is in sorry shape. So AIG found a novel way to deal with a troubled client: Buy it.

Not that AIG had much choice. With $500 million of performance bonds outstanding, if the giant electrical-mechanical contractor's woes had forced it to abandon projects, AIG could have been on the hook for plenty. Moreover, Fischbach owed AIG $23 million in other premiums. So on June 8, AIG agreed to buy Fischbach for $11 a share, or $43 million.

And now, having brought in respected contractor Peter Kiewit Sons' Inc. as consultant and partner, AIG's defensive move could turn out nicely. One reason: Fischbach owns lots of real estate, valued last year by Coldwell Banker Real Estate Group at $43 million.

But more important, despite its woes, Fischbach remains a heavy hitter in the stricken electrical contracting industry. Moreover, the market for large-scale construction is expected to improve. "There are going to be more mega-projects, and companies that can do those will do very well," says Stephen J. Dobi, construction industry analyst for Smith Barney, Harris Upham & Co. Better yet, many of Fischbach's rivals have gone under. "Most of the big companies got burned so badly that they've either folded or aren't big anymore," says one former Fischbach executive.

'CLEAN SLATE.' The deal with Kiewit is the key. Neither Kiewit nor AIG is talking, but securities filings disclose that Omaha-based Kiewit is setting up a new company of which it will own 51% and AIG, through Fischbach, 49%. This "clean-slate" company, using Fischbach's machinery and equipment and $25 million in cash from Kiewit, will handle new contracts. AIG eventually will lend an additional $25 million and vows to bond Fischbach projects for five years. Kiewit will consult on existing projects undertaken by the "old" Fischbach.

Why the legal gyrations? To separate Kiewit and the "new" Fischbach from the antitrust litigation still hounding the current company. Fischbach was swept

ERIC HOFFMANN/BW

up in a massive bid-rigging probe by the Justice Dept. a few years back. In 1986, it settled criminal charges and paid $1.8 million in fines. But three civil suits are still pending. And that, says AIG executive Mark E. Reagan, "is a concern."

AIG's financial strength should help get Fischbach back on its feet. Fischbach has lost more than $132 million since 1985 and had just $4 million in the till on Mar. 31. Only weeks before the merger was announced, AIG had to shell out $2.5 million to boost working capital.

AIG will likely have to kick in yet more capital. But as demand grows and lawsuits are settled, AIG's 49% stake could wind up looking pretty good—even if construction work is about the last thing the insurer set out to do.

By Gail DeGeorge in Miami

CONSUMER ELECTRONICS

CABLE'S NEW FRONTIER: WIRING THE WIRELESS

Three companies gamble that listeners will pay for digital-quality radio

Home Box Office, MTV, and Cable News Network were the kinds of innovations that catapulted cable TV into a $16 billion-a-year business in the 1980s. The question for the '90s: Can cable repeat that success with its new idea, digital cable radio?

International Cablecasting in New York, Digital Radio Labs in Carson, Calif., and General Instrument's Jerrold Communications Div. in Hatboro, Pa., all are gambling that they can do for home stereo what cable has done for TV. Their plan is to split cable-TV wires in half, linking one end as always to TVs and the new, second end to stereos. The product? Up to 240 channels of commercial-free, compact-disk-quality sound for a monthly fee of $7 to $12. Cable industry analysts believe that revenues could grow fast. "There's no question they have a shot," says Wendell H. Bailey, a vice-president of the National Cable Television Assn. "The question is how big it will get."

Already, General Instrument Corp. is out with Digital Cable Radio, which began service on May 21 in Willow Grove, Pa. The company hopes to be in 26 cities by October. On July 15, Digital Radio Laboratories Inc. plans to start its Digital Planet service in Walnut Creek, Calif., San Diego, and Los Angeles.

TESTING, TESTING. The final entry, International Cablecasting Technologies Inc., plans in October to kick off Digital Music Express in six cities, including Chicago, Las Vegas, and Seattle. The company was founded by former ABC Records Chairman Jerold H. Rubenstein. So far, ICT has raised $13 million from investors, including cable giants TCI West and Viacom International, and it plans a $7 million private placement. "We're aiming to break even after about 12 operating months," says ICT President W. Thomas Oliver.

Initial tests have been promising. Over the past two years, GI tried out its service in Sacramento, Willow Grove, and De Land, Fla., capturing an aver of 7% to 10% of the roughly 6,000 hou holds solicited in those three localit Starr L. Shiffer, an elementary sch teacher in Willow Grove, gives the s vice an A: "It's for people who d want any of the other garbage that t get on the radio." The company a found that the monthly cancellation r among cable-radio subscribers was l than 2%, about half that of pay-TV s vices such as HBO.

To reach a broader audience, the co panies must enlist cable-system ope tors, who will keep about two-thirds the monthly fee. But many cable s tems are wary. The reason: the dis failure of previous cable-audio servic which suffered from poor sound qua and marketing.

NO WEATHER. That track record h prompted some cable systems to ca the new service only in a few selec markets. "Everybody is taking a fai cautious, wait-and-see attitude," s David C. Andersen, a vice-president Atlanta-based Cox Enterprises Inc.'s ble division. But the new service h substantial advantages over older ons Each company is developing its own p gramming in high-quality, digital for and signals will be compressed to t up a minimum of room on the cable.

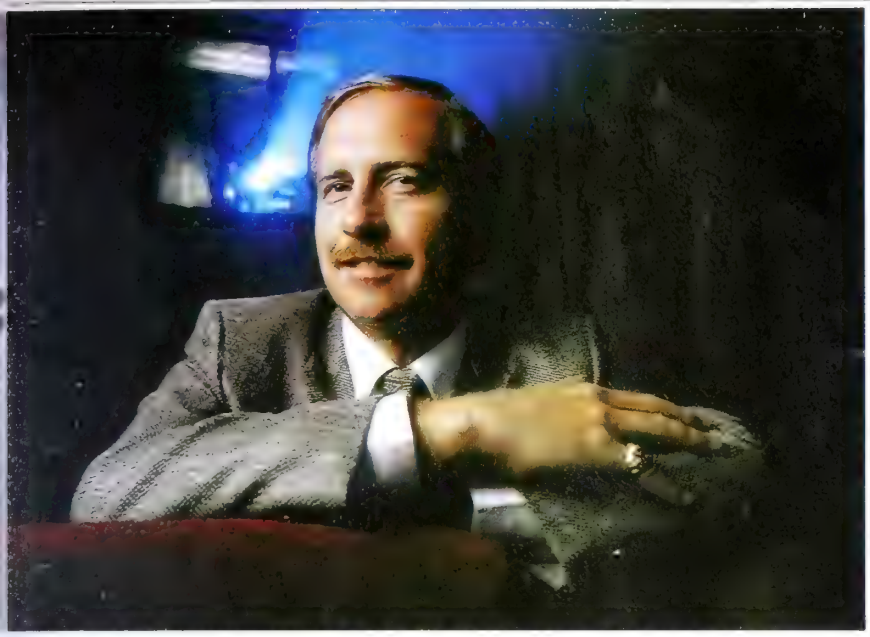
The boom in CD recordings also sho give the ventures a boost, as listene become more dissatisfied with the qu ty of traditional, analog radio. And spread of digital-audio tape recorde which are expected in the U. S. this su mer, could provide a way to tap the ble channels for high-quality tapes.

Surprisingly, the radio industry is too concerned by the potential thr from cable radio. Industry experts po out that at least 50% of radio listening done outside the home, a market ca radio won't reach. And the new servic aren't expected to offer local news a weather, mainstays of local stations.

The real threat to over-the-air radio and possibly to cable radio, too—is other emerging technology: digital-ra broadcasting. On May 18, three sm companies filed petitions with the Fed al Communications Commission to of digital-radio broadcasts, the quality which would be far superior to the c rent system. But digital radio, now ing tested in Europe, Canada, and Jap won't be available until the mid- to la 1990s at the earliest, partly because would require listeners to invest in n digital-radio receivers.

With its jump on its digital rival, cal radio has a window of opportunity. W it climb through that window into Am ica's homes? Stay tuned.

By Mark Lewyn in Washingt



IY PROJECTIONS: PATRICK EXPECTS TO BE IN 300 TO 400 MARKETS IN THREE YEARS

HE MOVIE MOGUL /HO THINKS SMALL

cking to the hinterlands has made Michael Patrick's cinema chain a hit

atience often reaps big rewards. Consider 40-year-old Michael W. Patrick, president and chief exec- ve of Carmike Cinemas Inc. Working from the glitz of Hollywood in Co- ıbus, Ga., Patrick has quietly built at will soon be the nation's fifth-larg- chain of movie theaters. You say ı've never heard of Patrick or Car- ce? If you live in a big city, that's ıctly his design.

Carmike's niche is to buy or build mul- ex theaters in smaller cities, usually h populations of fewer than 100,000 l little or no competition. By sticking markets such as Muscle Shoals, Ala., l Ponca City, Okla., and maintaining a ıservative acquisition strategy, Pat- c avoided the ruinous empire building the late 1980s that hobbled many larg- theater chains.

VER'S MARKET. Now, the patient strat- y is beginning to pay off: On June 15, rmike announced it would pay trou- d Cineplex Odeon Corp. from $7 mil- ı to $13 million for 96 screens in the rolinas and Tennessee. The final price l be based on a bargain-basement six ıes 1990 cash flow. That's less than f the multiples Cineplex paid in its st expensive acquisitions.

Patrick says more deals are in the rks, and he vows that he won't over- y. Carmike—named for Patrick and older brother, Carl, an Atlanta banker—was formed in 1982 when Patrick's father, Carl L. Patrick Sr., led a leveraged buyout of a 265-screen theater chain owned by Fuqua Industries Inc. The family took the company public in 1986, but maintains 75% voting control.

The Cineplex deal will boost Carmike's screen total to 915 in 175 markets, still mostly in the Southeast. Patrick's goal is to be in 300 to 400 markets nationwide within three years. Analyst Alan S. Gould of Dean Witter Reynolds Inc. says Carmike is ideally placed to take advantage of what is now a buyer's market. "Almost all of the big guys are sellers," he says. "Cineplex, AMC, and United Artists all want to get smaller."

Hollywood is also playing to Carmike's strengths. "We don't run art houses," Patrick says without apology. What his customers want are action films featuring big stars—exactly what the big studios are now pumping out in growing numbers.

Granted, if the large studios stumble, profits for all theater chains will plummet. But during these salad days, Carmike stands out in translating record box office returns into operating profits (chart). Last year, earnings nearly doubled, to $6.2 million, as revenues rose 18%, to $99.4 million.

Much of the credit goes to Patrick's 1982 decision to computerize operations. Finding no hardware to his liking, he spent four years developing new ticket-selling and concession-stand terminals. Each theater's computer system is linked directly to Carmike's headquarters. Patrick knew right away, for example, that *Dick Tracy* wasn't going to post the numbers that *Batman* did last summer. And the system allows him to keep close tabs on whether concession sales meet his $1.40-per-customer target.

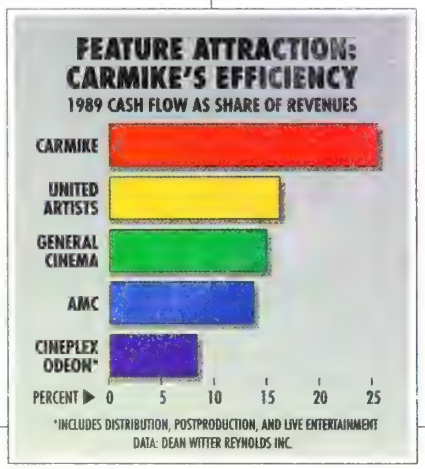
Surprisingly, few other theater chains have left the paper-report era. No wonder Carmike's overhead costs, which run less than 4% of revenue, are the envy of the industry. And thanks to computerization, Patrick says he tripled the number of screens in recent years with only minimal additions to headquarters staff.

Of course, midsize markets have their drawbacks: Carmike's ticket prices typically run $4.50 for adults, vs. $7.50 in New York. But Patrick is mostly insulated from bidding wars for the hottest releases because more than 80% of his screens are in monopoly or near-monopoly markets. Plus, he spends only $32 to $45 a square foot for new theater construction—a third to half the going rate in major markets.

HAVING WONDERFUL TIME. Funding the expansion drive hasn't been a problem. Thanks to a robust stock price, Carmike was able in February to convert $25.6 million of debentures into common stock. And Carmike is close to finalizing a $75 million fixed-rate private placement that will allow it to retire $35 million in floating-rate bank debt—and leave it with a $40 million war chest for acquisitions.

Patrick dismisses the notion that some day he might consider selling control of Carmike. Recently, he took his first vacation in 10 years, touring Walt Disney World with his wife and 8-year-old son. He hated it—not Walt Disney World, but spending so much time away from the office. "I'm having too much fun to even think of doing something else," he says. Still, there's talk of one of the bigger players proposing a joint venture to gain Carmike's management skills. Patrick declines to discuss the possibility. Whatever happens, he seems destined to become a lot better known.

By Chuck Hawkins in Columbus, Ga.



PHOTOGRAPH BY NELSON/BLACK STAR, CHART BY LAURIE DAUNIS/BW

Commentary/by John Carey and Joan O'C. Hamilton

THESE 'ORPHANS' DON'T NEED ANY NURTURING

Congress doesn't often pass a law that truly improves the lot of humanity. But that's what happened in 1983 with passage of the Orphan Drug Act. Congress recognized that therapies for the victims of thousands of rare diseases were not being developed for the simple reason that drugmakers couldn't produce the treatments at a profit. So legislators provided juicy incentives, the biggest being seven years of exclusive marketing rights, for companies that "adopt" orphan drugs and bring them to market.

The law was written to spur the search for cures of diseases that claim fewer than 200,000 victims. And as such, it has been spectacularly successful. Before the act, companies produced only a few drugs for such rare disorders. Now, 42 more orphan drugs—for conditions such as leprosy and testicular cancer—are approved for sale, and scores more are on the way. On May 29, for example, South San Francisco biotech pioneer Genentech Inc. said it would begin clinical trials of a new drug for cystic fibrosis.

Most of these drugs won't make much money. But tucked in among the true orphans are a few princes masquerading as paupers (table). The lucky "parents," who are raking in hundreds of millions of dollars a year, are violating the spirit, if not the letter, of the law.

No wonder Congress is considering an overhaul. "In a few cases, the act has led to exorbitant drug prices, which must be paid by consumers and the federal government," complains Representative Henry A. Waxman (D-Calif.). He is pushing a bill in his House health and environment subcommittee to prevent companies from gaining monopolies on drugs that are too profitable to be orphans.

Consider the case of human-growth hormone. In 1985, Genentech won a heated five-company race for Food & Drug Administration approval of the hormone. It also received orphan-drug status. Two years later, Eli Lilly & Co. won orphan-drug approval for a slightly different version. Now, the two companies are carving up a $175 million-plus annual market, charging each patient $10,000 to $30,000 a year for treatment.

The companies barred by the act from selling the hormone are fuming. "How anyone can say that a drug with five parents is an orphan is beyond me," says Thomas C. Wiggans, president of Serono Laboratories.

As one of the prime beneficiaries of the orphan-drug law, Genentech is leading the charge against any changes. "The cry about companies making profits [amounts to] attacking the American system," argues Genentech CEO G. Kirk Raab. But not so long ago, the company favored similar changes. In 1987, Genentech improved its growth hormone but was barred from selling it because of Lilly's similar orphan drug version. Genentech argued in a suit against the FDA that orphan status for growth hormone "amounts to a cruel joke on the sufferers of orphan diseases." The flip-flop is one incident that Raab would rather forget. "We wish we didn't have to live with that now," he admits.

What's clear is that growth hormone would have been developed without the act's artificial incentives. So would another blockbuster drug, Amgen Inc.'s anemia-fighter, epoetin (EPO).

'SALAMI SLICING.' If the Orphan Drug Act's shortcomings ended with just two cases, it might be O. K. to overlook them. After all, because of the pharmaceutical industry's skewed economics, prices probably wouldn't drop just because additional companies are entering the market. But the seven-year marketing exclusivity is such a powerful lure that drugmakers are resorting to the questionable practice of passing off blockbusters as destitute orphans when they can't get patent protection.

In a process known as "salami slicing," companies carve up the potential uses of versatile drugs until each use qualifies for orphan status. The practice has gotten so absurd, the FDA reports, that one company tried—and failed—to get orphan status for a drug to relieve knee pain. Left-knee pain.

The act needs to be changed before such abuses escalate. But Congress must be careful not to discourage companies from pursuing true orphans. One good idea is to end orphan-drug monopolies when companies unequivocally prove they developed the drug simultaneously. But to tackle health care costs, Waxman also should look beyond the Orphan Drug Act to how drug prices are set. That way, Congress can fix the act without throwing the orphan out with the bathwater.

DRUG DEVELOPMENT AT GENENTECH

BLOCKBUSTER DRUGS THAT QUALIFY AS ORPHANS...

Drug	Company	Estimated annual sales	Approval date
EPO	AMGEN	More than $200 million	June, 1989
ZIDOVUDINE (AZT)	BURROUGHS WELLCOME	$180 million	March, 1987
HUMAN GROWTH HORMONE	GENENTECH/LILLY	More than $175 million	March, 1987 (Lilly); October, 1985 (Genentech)

...AND SOME THAT REALLY FIT THE BILL

TRIENTINE	MERCK SHARP & DOHME	Less than $500,000	November, 1985
PEG-ADA	ENZON	$840,000	March, 1990
CALCITONIN	CIBA-GEIGY	Less than $1 million	October, 1986
CLOFAZIMINE	CIBA-GEIGY	Less than $1 million	December, 1986

DATA: FOOD & DRUG ADMINISTRATION, SHEARSON LEHMAN HUTTON INC., COMPANY REPORTS

DAY AT STANFORD B-SCHOOL: FEWER WILL FIND THEIR PATHS PAVED WITH GOLD

AVE MBA, VILL TRAVEL—ANYWHERE

all Street's woes have sent grads into more diverse jobs at lower pay

he glory days of the MBA are over. Just ask Chris Keefer. For months now, the 29-year-old with a shiny w MBA degree from the University of icago has struggled in vain to land a with a big drug company. "In the d-'80s," he says, "if you talked someat intelligently, wore a nice suit, and d modest computer skills, you could n a lot of money."

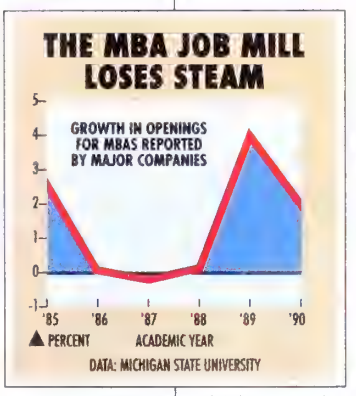
No more. Unless they're the best stuts from the most prestigious schools, As are finding that they're getting ver job offers and waiting longer for em. The nature of the jobs is changg, too: With openings on Wall Street rce, many MBAs are filling finance d marketing jobs at manufacturing npanies. And contrary to stereotype, fair number of grads show signs of ving a social conscience.

REFUL SHOPPERS. True, hard-driving lumbia University B-school alumni n pull down starting salaries of),000 in strategic consulting. But aver-e entry-level pay is closer to $40,000—ly about 3% higher than last year, acding to a Michigan State University udy. Part of the reason for the low owth rate is Wall Street's long-rung slump, which in boom years bids up value of an MBA. Another reason: st-conscious Corporate America has en eliminating management layers.

As a result, corporations are shopping more carefully. B-school placement directors say companies have cut back their interviewing schedules. Even IBM, which typically casts a wide net, canceled recruiting visits to some schools late last year, after announcing plans to reduce its work force by 10,000. "MBA recruiting has fallen off significantly across the country," says Hal Johnson, a headhunter with Korn/Ferry International.

So MBAs such as Andrew Stein have to change their plans. When he signed on at New York University's Stern School of Business two years ago, he had his eye on Wall Street. With an MBA in hand, Stein figured, he could just walk down the street from NYU into an investment banking post in New York's financial district. Part of his dream came true: He got the sort of job he wanted—but with First Albany Corp. in Albany, N. Y. That's O. K. with Stein, 26. "I feel lucky to have found this situation," he says. "I have friends who are still looking."

For most members of the Class of 1990, who entered B-school when MBAs were still the darlings of Corporate America, it's a tough lesson to learn. The Michigan State survey of nearly 500 corporations shows the number of openings for MBAs is up just 2% this year over 1989, compared with a 4% increase in jobs for the Class of '89 (chart). The American Assembly of Collegiate Schools of Business estimates that B-schools will churn out about 70,000 MBAs this year, up 30% from 1980. "It's a very competitive market out there," says L. Patrick Scheetz, assistant placement director at Michigan State. "MBAs are really having to scramble for jobs."



PUBLIC INTEREST. When they do find positions, many MBAs are likely to end up working in lower-paying finance or marketing jobs in industry—and they probably won't command the generous signing bonuses and other perks that Wall Street shops awarded in happier times. At Duke University's J. B. Fuqua School of Business in Durham, N. C., 25% of the Class of 1990 found jobs in the Midwest, compared with 16% last year. Many Fuqua students—28%—were bound for positions in marketing, compared with 13% last year. At Indiana University, corporate-finance positions were hot, especially those offered by Xerox, Eli Lilly, and Procter & Gamble.

Industrial companies may be picking up the slack in hiring MBAs, but other graduates are choosing work that supports the notion that the me-first '80s are truly over. While just a handful of MBAs at each school took nonprofit jobs in 1990, many students in the Class of '91 have summer internships with public and not-for-profit organizations. At Stanford University business school, 11.5% of the Class of 1990 graduated with certificates in public management, for which students must complete course work in public-sector economics, management, and decision-making, in addition to the normal MBA curriculum requirements.

Some students have been able to find the best of both worlds—a job with a company that emphasizes social responsibility. Cliff Kellogg, a 1990 Stanford grad, has taken a job as a loan officer at South Shore Bank of Chicago, which uses its profits to subsidize low-income real estate development. "Most of my classmates are afraid that their job may not be interesting in a couple of years," says Kellogg. "If you are working for something you believe in, you're not going to get bored." That kind of glory can't be measured in dollars and cents.

By Monica Roman in New York

PHOTOGRAPH BY GROPP/SIPA, CHART BY ALBERTO MENA/BW

WHY DID WE
A 12.5 MIPS W
FOR

BECAUSE

SPARCstation™ SLC. By breaking the $5,000 barrier, it turns the economics of computing absolutely upside down. And lets you give your people a system that runs circles around PCs and minicomputers.

Up till now, for this price you'd have to settle for a 386 with one or two little extras. Or a share

of a minicomputer. Or maybe an X terminal with an underpowered processor.

But now, you can give everyone a high-performance RISC workstation for the same price. Complete with 12.5 MIPS of processing power. The UNIX® operating system.

8 MB of memory. Even built-in Ethe

But more than a hot machine, y can give them all the strategic adva tages that come with our SPARC™ technology.

First, our workstations were me to be networked. So you can have whole groups working on the sam project. In perfect synch. And eve user has serious processing power Right at the desktop level. Second, there's the OPEN LOOK™ user inte face. Which lets people learn to use UNIX in no time flat. Finally, there

Microsystems, Inc. SPARC station, SPARC, and SPARCware are trademarks of Sun Microsystems, Inc. OPEN LOOK™ is a trademark of AT&T. UNIX™ is a registe

NTRODUCE
)RKSTATION
4,995?

WE CAN.

itself. With UNIX, your people
eate applications that would take
me to develop any other way. In
ıere are over 2,000 SPARCware™
ations that are ready to run
ıow. So you have the added
tage of choosing the world's
t standard for RISC/UNIX soft-
compatibility.
v did we design all this into a
system? Since 1982, we've built
ıg but UNIX workstations. So
learned a few things. We com-
y eliminated the processor box.
By building the electronics into the back of the monitor. We gave it a high-resolution monochrome display. And since SPARCstation SLC is designed for workgroups, all the files can be stored in a central server. Or on a local disk, if you'd rather.

For a lot of companies, introducing a machine like this would be next to impossible. But at Sun, it's not exactly our first breakthrough. And this is no announce-it-today, ship-it-next-year product, either. SPARCstation SLC is available in quantity today.

SPARCstation SLC. If you'd like to see how it compares to every other system you could buy, just call 1-800-624-8999 ext. 2066. From anywhere in the U.S. and Canada. And get ready to move your people a quantum leap ahead.

Because now you can.

sun
microsystems

AT&T Ethernet is a registered trademark of Xerox Corporation. *U.S. List Price Quantity [illegible] $4,995 includes a [illegible] monochrome display, 8 MB of main memory, integral Ethernet, SCSI, and serial interfaces, and the Sun Operating System

In Business This Week

EDITED BY HARRIS COLLINGWOOD

PLAYING HOT POTATO WITH PENSIONS

▶ The stakes in the three-year battle between LTV and a federal pension agency have risen sharply with the U. S. Supreme Court's June 18 ruling that the company must take back its estimated $3.3 billion in underfunded pensions. The financially ailing Pension Benefit Guaranty Corp., which insures worker pensions, took over LTV's plans in 1987, after the company filed for Chapter 11 reorganization. But the court ruled that the PBGC can give back the plans because LTV "abused" U. S. pension rules in 1987 when it financed add-on pensions for employees while the PBGC continued paying most of the original obligations.

The PBGC says its research shows that LTV can correct its underfunding. The agency also says it's willing to sit down with LTV to negotiate a payment schedule.

THE AMEX HAS SOME RECRUITING TO DO

▶ The American Stock Exchange suffered a big blow on June 19 when its president, Kenneth Leibler, resigned to become chief operating officer of Liberty Financial in Boston. Leibler, 41, was unhappy about being passed over for the top spot at the Amex last November in favor of James Jones, a former Democratic representative from Oklahoma. Leibler played a key role in launching the Amex's highly successful Nikkei warrants, which enable investors to bet on the direction of the Japanese stock market.

YAMAICHI'S AMERICAN FRIEND

▶ Yamaichi, the giant Japanese investment bank, is negotiating to buy a stake in Vector Securities International, a U. S. investment bank specializing in health care and biotech. A preliminary agreement could be signed as early as July, sources close to the negotiations say. Yamaichi International (America) Chairman Scott Pardee declines comment, as does Vector.

Vector, which was formed in early 1988 by Peter Drake, the former head of Kidder Peabody's health care research group, will scout acquisition candidates among U. S. pharmaceutical, biotech, and medical-device companies for Yamaichi's Japanese clients. The deal could keep the Deerfield (Ill.) boutique busy. Japanese drugmakers have been on a buying binge in the U. S. And Yamaichi is the investment banker for a number of top health care companies in Japan.

WHAT IS TCI'S MALONE UP TO NOW?

▶ Tele-Communications CEO John Malone has a radical idea. In a proposal to NBC President Robert Wright, the cable operator suggested that TCI cable systems be allowed to sign on as NBC affiliates in rural areas that don't get local broadcasts. NBC is pondering the notion, but its affiliates are sure to nix it.

While a TCI spokesman says hometown programming has long been a Malone dream, other industry types suggest TCI has another agenda. The announcement comes just as NBC's Wright is lobbying Congress to prohibit cable operators from getting "exclusive" rights to cable programming. TCI's position is that NBC can't support exclusivity for broadcast programming while supporting legislation that would eliminate cable exclusivity.

NOW YOU CAN DO SPAGHETTI HIS WAY

Step aside, Paul Newman. Another pair of famous blue eyes is beckoning grocery shoppers. Yes, Frank Sinatra's "Sugo Da Tavola," a pasta sauce "based on the same recipe" that Frank ladles on his linguine, is now in test markets around the country, retailing for about $2.70 for a 25-ounce jar.

Newman runs his salad dressing and spaghetti sauce company as a charitable enterprise, but when it comes to consur products, the Chairman of the Board is a for-profit kind guy. For 20¢ less than the price of a jar of Sugo Da Tavola y can pick up five shares of the sauce's maker, Armanino Fo of Distinction. Last year, Armanino lost about $30,000 on million in sales of sauces and pasta products, but that has deterred the likes of singer Pia Zadora and former Mouse teer Annette Funicello from taking a flyer. The NASDAQ sy bol for Ol' Blue Eyes' favorite company? BLUE, of course.

TRAVELERS SHRINKS ITS HORIZONS

▶ Yet another auto insurer is hitting the brakes. On June 20, Travelers announced it would stop insuring cars and homes in nine states. Cars and home premiums in th states account for 26% of p sonal-lines premiums. But the first quarter, the com ny's personal-lines busine lost $4 million—on top of $13 million loss in 1989.

The insurer figures it h to weed out money-losi states. That means farew to South Carolina, North D kota, South Dakota, Wy ming, West Virginia, Neva Idaho, Arkansas, and Oklah ma. The company is almo done with a pullout from t California auto market.

EMERY DELIVERS MORE TROUBLE FOR CI

▶ Transportation giant Co solidated Freightways h had to swallow hard again justify paying $478 million f Emery Air Freight in 198 Operating losses at the tro bled air shipper have forc CF to suspend its comm stock dividend—which, un now, it had boosted steadi for the past 18 years. Th suspension should save t company $37 million annuall CF's banks insisted the di dend be cut as part of a ne financing package that tripl Emery's borrowing power $860 million over the next fi years.

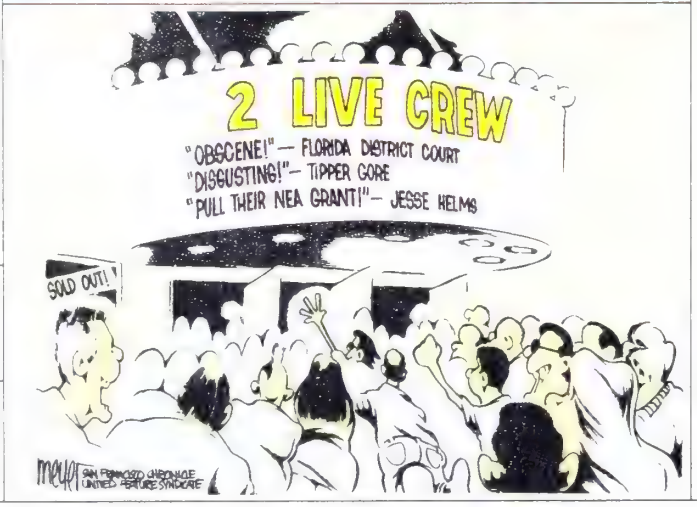


ILLUSTRATION BY ROBERT ZIMMERMAN; CARTOON BY MEYER/SAN FRANCISCO CHRONICLE

EDITED BY STEPHEN H. WILDSTROM

IOW KEMP BUILT A HOUSING BILL 'HAT MAY STAND UP IN CONGRESS

hanks to the budget deficit, squabbling among Democrats, and President Bush's willingness to use his veto, social legislation has faced tough going in Congress of e. But in what could turn out to be the big legislative rprise of 1990, the first major housing bill in a decade now nds a good chance of becoming law.

The bill, sponsored by Senators Alan Cranston (D-Calif.) and fonse M. D'Amato (R-N. Y.) would spur rehabilitation of w-income housing by channeling an extra $2 billion a year to ates and cities. Although the Administration and Senate emocrats still have serious differences over philosophy and oney, Capitol Hill insiders expect a Sene deal to emerge. The House plans to ke up its own version in July.

Why might a housing bill become law nen other social legislation, such as pantal leave and health benefits for the insured, has been derailed by Adminisation opposition? For one thing, Housg & Urban Development Secretary Jack Kemp desperately wants to have someing to show after 18 months spent eaning up the Reagan Administration's ess at HUD. Kemp has argued strenusly—and successfully—that the mearre can be made a laboratory for conservtives' ideas on "empowering" the poor. Kemp's hand is strengthened by howls of anguish from the tion's homebuilders. The government announced on June 19 at housing starts in May fell to a 1.2 million-unit annual rate, e lowest since October, 1982, in the depths of the recession.

HUD'S KEMP: "EMPOWERING" THE POOR?

ATTLE OF ACRONYMS. After more than a year of pleading, emp has finally won Budget Director Richard G. Darman's nditional support. Darman has agreed to accept a total of $3 ilion more in HUD spending than the $14 billion called for in e 1991 budget if Congress meets three conditions: The bill ust not provide federal money for new construction—only habilitation. It must direct most aid to the poorest beneficiaries. And it must put the Federal Housing Administration's mortgage-guarantee program on a sound financial footing.

The heart of the Cranston-D'Amato bill is a new grant program called HOP—Housing Opportunity Partnerships. The money would go to cities and states to encourage them to work with developers and nonprofit groups to rehabilitate 100,000 housing units a year. But, as it stands, the measure would allow cities to hire developers to build new units.

In a battle of acronyms, Kemp wants to wrest some of the HOP money for his pet HOPE program—Home Ownership & Opportunity for People Everywhere. HOPE is designed to fund the purchase of public housing by tenants. Democrats think the idea is laudable but fails to meet the need for new low-income housing. Still, their bargaining position would be strengthened if they offered more than the $100 million a year for HOPE. "The burr that really seems to be under Kemp's saddle," says a GOP Senate staffer, "is the token funding of HOPE."

While senators debate amendments on the floor, the discussions that matter are going on in Cranston's office. Supporters of the measure have been working with Administration officials to cut a deal. After talks bogged down on June 18, the White House threatened a veto, but that is mainly a ploy to get the negotiators off dead center. "It's saber rattling," says Barry Zigas, president of the National Low-Income Housing Coalition, which backs the legislation.

All parties seem to want a bill badly—and everyone seems prepared to overlook the odd positions that the major players find themselves in. Cranston faces an ethics investigation stemming from his involvement with housing finance. D'Amato is being probed in connection with the Reagan HUD scandals. And Kemp, who built a career attacking the government, could become the godfather of a new poverty program.

By Paula Dwyer, with Peter Hong

APITAL WRAPUP

'HRIFTS

The Administration's latest plan to step up the pace of prosecutions gainst looters of failed savings and oans may not be enough to satisfy Congress. Attorney General Richard L. Thornburgh plans to create an office to leal with S&L crimes, but 180 House nembers want stronger action. They've signed a resolution drafted by Representative Peter P. Smith (R-Vt.) alling on Thornburgh to seek an indeendent counsel to probe the involvenent of officials. Under the Ethics in Government Act, the Attorney General nust respond within 90 days once Smith files his petition. Much of the pressure is coming from junior members like Smith, who weren't around while the S&L crisis was brewing.

SCIENCE

Proximity is power, so the scientific community was delighted earlier this year when Science Adviser D. Allan Bromley moved into the West Wing of the White House. Now, Bromley has been booted back to the Old Executive Office Building. The ostensible reason for the move: As head of the Office of Science & Technology Policy, Bromley answers to Congress. So, top Bush aides said, he didn't belong in the midst of the President's inner political circle.

PERESTROIKA

Soviet President Mikhail Gorbachev is becoming a hot item on the campaign trail this year. When Gorby visited Washington, Minnesota, and California, American politicians nuzzled up to the Soviet leader—and made sure the moment was captured on film and videotape. Democrat Rudy Perpich, seeking a fourth term as Minnesota governor, is readying ads featuring himself and Gorbachev. Senator Alan Cranston (D-Calif.), who isn't up for reelection until 1992, plans the same. Unlucky members will have to make do with pictures taken during photo opportunities at the Soviet embassy.

ALL GORBY'S HORSES AND ALL GORBY'S MEN...

The Communist Party will probably splinter in July. Can the nation itself hold together?

The Conference of Anarchist-Syndicalists, a new Soviet political party, ponders doing away with all government, while another fringe group pushes to unite the KGB, the Red Army, and the Russian Orthodox Church under a restored monarchy. Meanwhile, the vast, rich Russian republic declares itself sovereign, joining several of the other 14 Soviet republics in a challenge to Moscow's authority. In response, President Mikhail Gorbachev invites the republics' leaders for Kremlin talks that could turn the Soviet Union into a federation more similar to Canada or the European Community.

It sounds like Moscow's silly season. But it isn't. The next several months could prove to be the most unpredictable and important phase in 73 years of Soviet history. The Communist Party is losing its all-pervasive role. And with its demise will come the end of Stalin's legacy: a nation tightly controlled from the center.

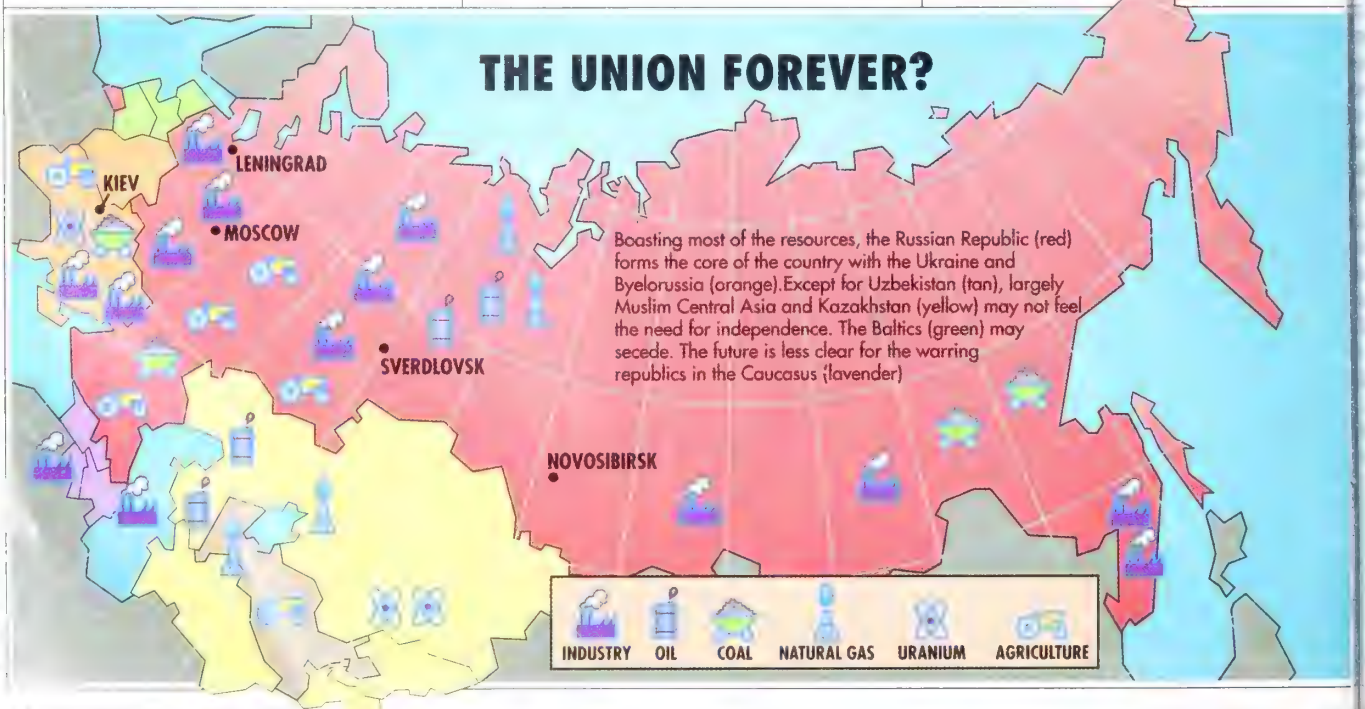
The turning point could come on July 2, when the Communist Party will meet for its 28th Party Congress to debate its future and elect new leaders. The result of the 10-day meeting is likely to be the split of the 18-million-member party into at least two separate groups. A progressive faction claiming about 40% of the membership may break away unless the party is changed radically. Says Anatoly Sobchak, Leningrad's newly elected progressive mayor: "It's impossible to preserve one party with people having such different points of view."

WEAKENED GRIP. Such a splintering would have profound effects across the country. With the Communists' iron grip on politics and economics finally weakening, everyone from old-style apparatchiks to ambitious new political leaders is caught up in a power grab. In the last six months, dozens of new political parties and associations have sprung up, uniting groups ranging from farmers to anarchists. Newly elected regional government councils are holding back locally produced cotton and other goods for themselves in a demonstration of defiance against Moscow's central planners.

Local governments are also taking reform into their own hands. Radical leaders in Moscow and Leningrad and from the Baltics to Georgia have fashioned plans to sell off state shops and restaurants, bolster small business, establ new commodity exchanges, and, in t rural areas, encourage private farmi Leningrad intends to set itself up as free-enterprise zone and cut the ties all of its factories to their Moscow min tries, Sobchak says. Fully half the stor and restaurants in the Russian repub may be sold to the private sector.

In Moscow, the Kremlin has yet develop a comprehensive reform pl that could fill the empty stores and gi hope that *perestroika* has a chance success. A scheme proposed in May Prime Minister Nikolai I. Ryzhkov w quickly shot down as being too tep and its call for unpopular price hikes f bread was postponed. Ryzhkov has un September to come back with a mo radical blueprint, or he may be forced resign.

So far, Gorbachev has managed stay above the fray. But if the Comm nist Party divides, Gorbachev will faced with a clear choice. Should he r main at the top of a conservative par or jump ship and join the dissent-


THE UNION FOREVER?

Boasting most of the resources, the Russian Republic (red) forms the core of the country with the Ukraine and Byelorussia (orange). Except for Uzbekistan (tan), largely Muslim Central Asia and Kazakhstan (yellow) may not feel the need for independence. The Baltics (green) may secede. The future is less clear for the warring republics in the Caucasus (lavender)

's? He has been fighting fiercely to ·event a split by urging the party to ·oaden its platform. But Gorbachev ight eventually abandon his top post ; party general secretary if a rift is evitable. Then he would govern the ›untry through the recently created ›st of president, which now has sweep- g powers to issue decrees, declare ates of emergency, and hire and fire ›vernment officials.

›WERFUL FORCES. The prospect of a ırty split is just another sign of what ›viet citizens call "the centrifugal ·rces" pulling at their country. These rces have led to declarations of sover- gnty by the border republics of Lithua- a, Latvia, and Estonia. Gorbachev ·alt with those attempts by treating e Baltics' leaders as errant schoolchil- ·en. But his attitude changed abruptly hen his political rival, Boris N. Yeltsin, as elected President of the Russian re- ıblic on May 29. Russia's subsequent ·clarification of sovereignty was a matter ›rbachev could not dismiss. The repub- : has 90% of the nation's oil, 75% of its ıtural gas, much of its industry, and ılf of its people (map).

Now, Gorbachev is taking a major ımble by pushing for a "new treaty of e union." Talks began June 20. The ›viet leader has proposed giving real ›vereignty to the republics and letting em decide what powers to grant to the ·ntral government in Moscow, says An- ·ei Girenko, a Communist Party secre- ry who oversees policy on national- es. At a minimum, Moscow would sist on control over Soviet defense and reign policy, all nuclear weapons, and ›ssibly a central bank.

But beyond that, the republican gov- ·nments could choose to establish their ·vn economic policies and sign their ·vn treaties and trade deals with for- gn countries. "Everything depends on ›w much authority the republics give ıe center," says Girenko. Under the an, the rich Russian republic could ıin control of the vital resources of the ›viet economy. The Baltics and Geor- a, which don't fear a market economy, ›uld move more quickly to privatize in- ıstry, free prices, and sell off state nd. More backward republics such as ıdzhikistan could continue to depend ı Moscow for economic support and ıpervision.

If Gorbachev follows through on this an, within a year the Soviet Union ›uld go through wrenching changes. one will be the glue that held more ıan 100 competing nationalities togeth- · in one vast country. Now, with the ›litting of the party and the rejection of ·ntral planning, Gorbachev faces a ore precarious balancing act.

By Rose Brady in Moscow, with Peter aluszka in New York

EASTERN EUROPE

WHERE U.S. BANKERS ARE RUNNING A DISTANT SECOND

In Eastern Europe, they're finding West Germans got there first

The pinstripe-suited U. S. bankers who have rushed to take up temporary residence in East Berlin's Grand Hotel are getting an education, as they sit in suites replete with shag carpets, fake antiques, and ivory-tinted telephones. There, cursing East Germany's faulty phone lines, the bankers call managers of East German state-owned companies, looking for business in what they think will be a hot new market. Too often, they find that West German bankers got there first.

Welcome to Wall Street East. Here and in the rest of Eastern Europe, American commercial and investment bankers are feeling the power of their competitors from West Germany. "You've got to hustle to get any business done in East Germany," says Michael Miller, an executive at Salomon Brothers in Frankfurt.

'SWALLOWED WHOLE.' West Germany's Deutsche Bank and Dresdner Bank already have a lock on the market, through ownership stakes in East Germany's Deutsche Kreditbank, the country's biggest commercial bank, with $80 billion in loans to East German industry. Other big German banks are taking stakes in East German counterparts, prompting what Miller calls a "big fear among East German companies that they'll be swallowed whole by West Germans, even before non-German investors get a foot in the door."

Czechs, Hungarians, and Poles also are eager to see an expanded U. S. presence as a counterweight to German financial domination. Aside from expanding in East Germany, Citibank has had a successful Hungarian venture for five years, called Citibank RT, and is negotiating to set up offices in Poland and Czechoslovakia. Salomon has just won permission to manage a $200 million East European investment fund guaranteed by the U. S.'s Overseas Private Investment Corp. (OPIC). Merrill Lynch & Co. tiptoed into the water June 11 with a $50 million Austro-Hungary Fund Ltd.

But U. S. financial institutions are not likely to take any dramatic plunges into cross-border lending. In view of their Third World lending problems—on top of real estate, LBO, and stock-market worries at home—few have the capital strength to play more than niche roles. So they want fee-based business, such as helping governments privatize or restructure state-owned companies, providing trade credits, and taking local currency deposits—but no megaloans.

The Americans also are competing against the French and British. Paribas, the French investment bank, in late June announced plans to open a representative office in Leipzig to work on privatizing East German companies. In Poland, British merchant banks are scoring. On June 19, the British government even announced that it would pay the fees of Barclays de Zoete Wedd, N. M. Rothschild, and J. Henry Schroder/Wagg to

help the Poles privatize their industry.

One handicap all Western financiers face in Poland, Czechoslovakia, and Hungary is that major doubts remain about the details of countries' company and property laws. Weak auditing and untrustworthy company data also make investing hazardous. A Salomon executive acknowledges that it "will take us literally years" to invest its $200 million fund fully. Of the three countries, Hungary boasts the most improved financial system, including a baby stock exchange inaugurated on June 21.

For now, the biggest competitive battle is in East Germany. Bankers assume that once the economic and monetary union of East and West Germany kicks in on July 1, the old East Germany will have a much clearer monetary status and legal framework. "Investors are very positive about the ability of East Germans to catch up very quickly with the West," says Ronald Freeman, managing director of Salomon Brothers International Ltd. in London. Several deals are in the works, he says.

> 'Our big U.S. clients are asking whether they should put money into East Germany now. We tell them: Yes.'

Likewise, Bankers Trust predicts that after July 1, several of its big deals will materialize, particularly West German acquisitions of East German companies. "Some of our big U. S. clients are asking us whether they should put money into East Germany now," says Jens Münk of Bankers Trust in Frankfurt. "We tell them: Yes." If they take that advice, Berlin could become the banking center for all of Eastern Europe.

By Igor Reichlin in Bonn and John Tepleman in East Berlin, with Györgyi Kosis in New York

JAPAN

THE NEWEST NINTENDO WILL TAKE A SLOW BOAT TO AMERICA

The company wants to squeeze all it can out of its current hardware first

For more than a year, American and Japanese players of Nintendo video games have been waiting for the Kyoto-based company to join its competitors in bringing out the next generation, a 16-bit version. The end of their wait is in sight, sort of. The video game powerhouse will roll out its new Super Family Computer in Japan this November. But Nintendo aficionados in the U. S. will probably have to wait until 1992 for the new, improved model with its lusher graphics and better sound.

That delay has some analysts wondering whether Nintendo Co. is carrying a strategy of planned obsolescence to extremes. The company now has a stranglehold on the global market, worth an estimated $10 billion, including software. It is betting that American kids will continue to buy its old game until it captures about 40% of U. S. homes, up from 28% now. It's introducing the new model at home because the old game has already reached the 40% saturation point there, and sales are falling.

Nintendo is also gambling that its huge library of video games for the old machine will keep customers loyal. That library, for example, has won Nintendo 9 out of 10 game buyers in Japan.

HARDWARE GAP. Yet Nintendo is definitely lagging behind its rivals in introducing new hardware. NEC Corp. launched a $159 16-bit machine in 1987, and Sega Enterprises Ltd. brought out one selling for $189 in 1988. NEC has shipped 2.1 million of its Turbografx-16 machines in Japan and 400,000 in the U. S. Meantime, Sega has sold 600,000 of its Genesis models in the U. S. and 1 million in Japan.

Most industry experts see Nintendo maintaining its mastery of the game universe, although it may lose some market share. For one thing, Nintendo has shipped nearly 40 million 8-bit machines around the world. The challengers just don't have the game software to crack this highly loyal base. "These are all worthless boxes without software, and Nintendo has them [beat] hands down there," says Darrel E. Whitten, research vice-president at Prudential-Bache Securities (Japan) Ltd.

RIVAL NEC'S TURBOGRAFX LED THE WAY IN 16-BIT MACHINES

Nintendo draws the best independent software designers, who have created such hit games as Dragon Quest. Nintendo President Hiroshi Yamauchi, 66-year-old descendant of the 101-year-old company's founders and owner of 11.4% of its stock, forbids its designers to write software for anyone else. They go along because Nintendo offers such a huge market. Several Nintendo games, such as Super Mario Bros., have become cultural icons in the U. S. and Japan.

3-D EFFECTS. Despite its leadership in software, Nintendo's new machine, priced competitively at $160, will debut with only three games, against Sega's 30 and NEC's 70-plus. One of the new ones is Super Mario Bros. IV, expected to be a hot seller. Another involves flight simulation, which Japanese game expert Hisakazu Hirabayashi says offers unmatched 3-D effects. Existing game cassettes cannot be played on the 16-bit machines. But Nintendo has licensed 33 developers to crank out more new games. The Super Family Computer also boasts zoom effects and allows players to rotate cartoon characters on the screen. Competitors can match this, but not easily, Hirabayashi says.

Besides its software prowess, Nintendo brings startling financial firepower to the new round of video-game wars. Although its projected sales of $2.7 billion this year are less than one-quarter of Sony Corp.'s, Nintendo's pretax profits of around $725 million are likely to be about the same as the consumer electronics giant's.

Nintendo is also trying to build on its dominant position. In Japan, it already offers home-banking and stockbroking network services, to which it recently added a game-playing function. When this feature reaches the U. S. next year, players from Bangor, Me., to Carlsbad, N. M., can fight it out long-distance.

By Robert Neff in Tokyo and Maria Shao in San Francisco

This Fourth of July
have something really impressive to display.

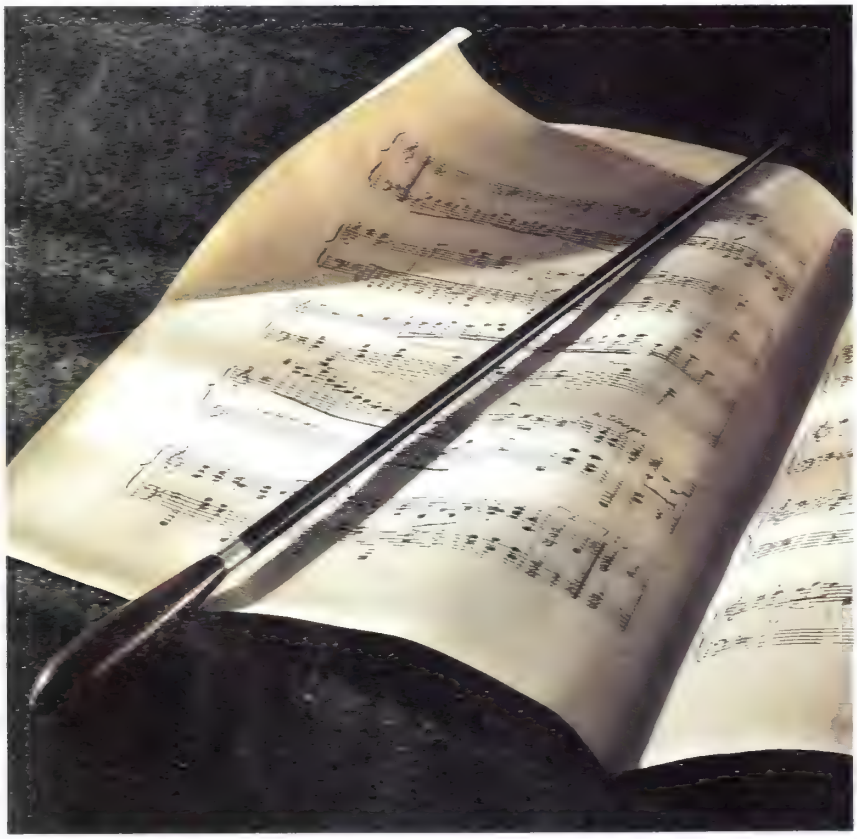
Tanqueray. A singular experience.

Imported English Gin, 47.3% Alc/Vol (94.6°). 100% Grain Neutral Spirits. © 1988 Schieffelin & Somerset Co., New York, N.Y.

In the wrong hands, it's just a stick.

No one ever got meaningful results by just pointing and waving. This is especially true in the area of workers' compensation, where costs continue to spiral out of control.

With our new Rx Comp program we've developed an approach that squarely confronts the major cause of the problem–ever-rising medical costs.



Rx Comp totally integrates the substantial benefits of our claims management programs with our dedicated provider network and proven medical cost containment techniques.

What's more, we're the only company that can provide all this with existing resources.

The result–better cost control and quality care. Plus the added advantages of faster claims processing and better management of all components in the program. Early results using this new approach indicate savings in excess of 20%.

Write Jack Morrison, CIGNA Property and Casualty companies, Phila., PA 19192. After all, plenty of companies have a few of the pieces, but only one has the vision to orchestrate all of them.

We get paid for results.℠ CIGNA

EDITED BY JOHN PEARSON

NO PAIN, NO GAIN' SN'T GOING OVER BIG IN VENEZUELA

or decades, massive oil revenues disguised the inefficiency and waste of resources in Venezuela's sheltered economy. Now, Venezuelans' fond memories of easier times se a big political obstacle to President Carlos Andrés Pérez' forts to phase out regulations and subsidies and shift the untry toward a market economy. On June 14, Pérez backed wn from hiking gasoline prices by 7¢, to 27¢ a gallon. At at price, it would still have been the world's cheapest, but rez feared that angry student protests d fierce opposition within his own party ould trigger a replay of the anti-austerr riots that left 300 dead shortly after inauguration early last year.

Pérez may raise the gasoline price in ly, after the universities recess and nsportation subsidies for the poor ben, observers speculate, but his credibilr has already suffered. The episode is a rning of the perils ahead for other Lat American leaders, from Mexico to Arntina, who are trying to wean their untries away from state controls and ward the market. Although the trend is the same as that reeping Eastern Europe, Latin leaders can't build support r economic change by tying it to the end of hated political gimes. For Venezuelans in particular, the lingering illusion oil wealth also makes it hard to convince voters that sacrices are necessary.

PEREZ: URGING SACRIFICE ON THE VOTERS

PULIST PAST. Pérez is now trying to dismantle the very ructure that he helped build as a free-spending populist ring his first term as President, from 1974 to 1979. Since king office again in February, 1989, he has lifted controls on ost prices, cut tariffs, unified the bolívar's multiple exchange tes, opened the economy to foreign investment, and laid ans to privatize many state-run industries. The shock of the forms shrank Venezuela's economy by as much as 15% last ar, but the main payoffs, so far, are a slowdown in inflation an annual rate of around 30%, down from 80% in 1989, and a reduction in the budget deficit to 2% of gross domestic product, down from 7% last year.

Now, Pérez wants to reform the state-run monopolies, which are protected by entrenched bureaucrats and even by leaders of his own center-left Democratic Action Party (AD). After five months, he has made little headway against corruption and overmanning in Venezuela's ports. However, he is breaking up the nation's mismanaged water system into regional units to improve their operation, and he may contract with Caracas' privately owned electric company to run the city's water supply as well. Pérez gained public support for privatizing the state airline, Viasa, following worker slowdowns that stranded thousands of passengers, including Pérez himself. But labor unions are expected to win approval in Venezuela's Congress for a bill providing costly severance benefits to most workers. That could dampen the interest of private investors, Venezuelan and foreign, in bidding on state-run companies that Pérez puts up for sale.

Many Venezuelans complain that the President has failed to explain his plans and goals to win wide public support for his reforms. But even with strong voter backing, Pérez would face political machines that have a near stranglehold on Venezuela's main parties, the AD and the center-right COPEI. On Caracas walls, spray-painted messages read "AD=Corrupción." That widely held view explains why many Venezuelans are reluctant to make sacrifices unless abuses by politicians are also curbed.

In a recent talk with foreign journalists, the embattled President conceded that his unpopular measures are like a "dish served up to the opposition," but he added: "Tomorrow they will agree with us." Even so, his troubles suggest that for the reform drive to succeed in Latin America, political renewal needs to accompany sweeping economic changes.

By Gail DeGeorge, with Ann Charters, in Caracas

LOBAL WRAPUP

APAN

inding a way to open Japan's protected rice market without alienating rural backers looks like the next olitical test for Prime Minister Toshiki Kaifu. Some Liberal Democratic Party nembers believe that Kaifu's survival o the end of his current term in November, 1991, hinges on devising a solution. Japan is under intense pressure rom the U. S. and other countries to pen its market in the Uruguay Round f General Agreement on Tariffs & Trade talks, which end in December.

It won't be easy. Kaifu can't meet J. S. demands fully, because the LDP till relies heavily on the farm lobby for support. But if he fails to find a compromise, enemies within the LDP will try to topple him as incompetent.

Kaifu's popularity, however, is at an all-time high for any Japanese leader. Moreover, polls show that 65% of Japanese want some degree of opening, because protection keeps the retail price of rice, at around $1.65 a pound, much higher than elsewhere. And the LDP found it could win last February's elections despite growers' anger at previous steps to liberalize farm trade.

Lately, Japan's largest newspaper, ex-Prime Minister Noboru Takeshita, and an opposition party have called for reappraisal of the closed-door policy. A new consensus seems to be emerging.

ISRAEL

A new Israeli office in Beijing, opened in mid-June to expand academic and scientific exchanges, underscores the broadening range of Israeli-Chinese ties. Up to now, an Israeli consular office in Hong Kong has served as the main link between the two countries, particularly for trade. Israel is stepping up sales of agricultural and military technology to China, including advanced knowhow from its abandoned Lavi fighter program. Israel also may be helping China upgrade its intermediate-range missiles, which the Chinese have already sold to Saudi Arabia.

IT'S A NEW DAY FOR ITT'S RAND ARASKOG

The dealmaking seems to be over. Now, he's out to boost operating profits

It's show-me time for Rand V. Araskog. ITT Corp.'s lanky chairman spent the 1980s restructuring the company, selling off $9 billion in assets and buying back loads of stock. A savvy dealmaker, he has recast a hydra-headed monster into nine business lines anchored by the ITT Hartford insurance group, which accounts for nearly half of ITT's $20.1 billion in annual revenues. Now, the great ITT bazaar is pretty much over, and Araskog is out to boost ITT's so-so operating earnings.

His first task will be to turn things around at the Hartford, where a downturn has dampened ITT's overall profit performance. Some investors are growing impatient. They want even more assets sold off, but Araskog isn't budging. "We have gotten rid of the things that caused us considerable risk," he says. "Everything else makes sense for us to keep."

ARASKOG BELIEVES ITT NOW HAS THE RIGHT MIX OF BUSINESSES

RAID-PROOF. Araskog has certainly worked wonders as chairman since taking over from the legendary conglomerateur Harold S. Geneen in 1979. He has used the take from his selling spree to clean up ITT's balance sheet. In 1985, the company had $1 billion in off-balance-sheet financing and a debt-to-total-capital ratio of 45%. By the end of 1989, the ratio was 30%. He has also propped up ITT's stock by snapping up roughly 25 million shares, or about 17% of total common, since 1987. Aside from the Hartford and financial services, ITT remains eclectic: the Sheraton Corp. hotel chain, auto parts, defense technology, and pulp and timber.

Araskog's critics want still more pruning at ITT. "I don't think ITT makes any sense," says Chicago inv tor and Hyatt Corp. Cha man Jay A. Pritzk "There's no question th stockholders would be b ter off if ITT were brok up." Pritzker actually a proached Araskog in 19 about a leveraged buyout

The raiders really start to circle, though, after I slashed its dividend 63% 1984, which sent the com ny's stock tumbling. Ara kog rejected all buyout fers. And in *The ITT Wa* his 1989 book about the co pany's brush with raide during the mid-1980s, Ara kog denounced Pritzker a others as quick-buck artist In fact, he has emerged as leading critic of the financi excesses of the 1980s.

Araskog has little to fe from raiders now that tak over financing has becon scarce. But he is still und constant pressure from some on Wa Street to dip into ITT's treasure trove assets. On June 12, ITT threw a farthin to the Street by announcing it had sold sliver of its 37% stake in Alcatel, a joi venture formed when ITT's Europea telecommunications business merge with that of Compagnie Générale d'Ele tricité of France in 1986. The sale w mean a $139 million aftertax gain an will be used to buy back more stock.

HEALING OLD WOUNDS IN CHILE

It was perhaps Harold S. Geneen's darkest moment. In 1973, Geneen appeared before Congress to answer charges that he had tried to bribe CIA officials to enlist their help in blocking the election of Chilean Marxist leader Salvador Allende Gossens in 1970. The motive: Allende was planning to nationalize ITT's Chile Telephone Co., valued at $153 million.

Geneen, who declined to comment for this story, admitted meeting with CIA officials, but denied any talk of payoffs. Yet the episode haunted ITT for years. Now, Rand V. Araskog is trying to improve ITT's Chilean ties. In March, he met with Chile's new President, P Aylwin, the first such visit by an I since the late 1960s. "His attitude ITT was very constructive," says man Araskog.

BURN ALERT. Araskog is no stran the intelligence community. A Point graduate, he served as a Pen liaison officer to the CIA during th 1950s. Yet, he is critical of the CIA' efforts to enlist ITT officials. Com that get too cozy with the CIA will ly regret it, he warns.

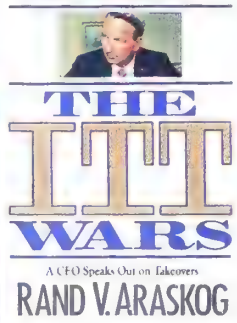
That was certainly true in ITT's

Araskog's task is to convince inves-
's that ITT is more than just a sell-off
ıy. And that will take some doing.
en though its stock has pretty much
pt pace with the Standard & Poor's
)-stock index over the past five years,
' shares were trading recently at $58,
ıt above its $55 book value and well
low the $100 or so that Salomon
others Inc. estimates the company
ıuld be worth if sold off piecemeal.
Araskog isn't satisfied either, since he
sn't yet reached ITT's corporate goal
set in 1986 of a 15% return on equity.
: estimates he'll hit only 13% this year,
ven the cyclical downturn facing the
ırtford, which accounted for 22% of
's profits last year. Even so, he fig-
es that he now has the right mix of
sinesses to cruise ahead into the
)0s. And, to be sure, last year was a
spectable one for ITT: Earnings grew
%, to $922 million, on a 4% gain in
les to $20.1 billion. "We ought to be
ıding in the 60s, the 70s, and maybe
en the 80s within the next two or
ree years, provided the world economy
lds," Araskog says.

NK-FREE. To help ITT hit such high
tes, Araskog has set about fixing the
ırtford. Last year, the unit's operating
rnings fell 26%, to $322 million, owing
part to $133 million blown away by
ıses from catastrophes such as Hurri-
ne Hugo. The Hartford's operating re-
lts rebounded a bit during the first
arter, up 17%, to $76 million, thanks to
ong results from its private and com-
ercial life insurance operation. And
's fortunate that Hartford's invest-
ent portfolio is virtually free of junk-
nd and real estate exposures.

The nagging problem for the Hart-
rd, like other insurers, is its $1.5 billion
to insurance business. That segment
ıt $20 million last year from soaring
ıims and efforts by California and oth-
states to roll back rates.

Araskog is trying to yank the Hart-
rd's auto business out of New Jersey,
ıt so far the state has successfully
ocked the move in court. The Hartford
ay also do more direct policy-writing of
own and lower its commissions to



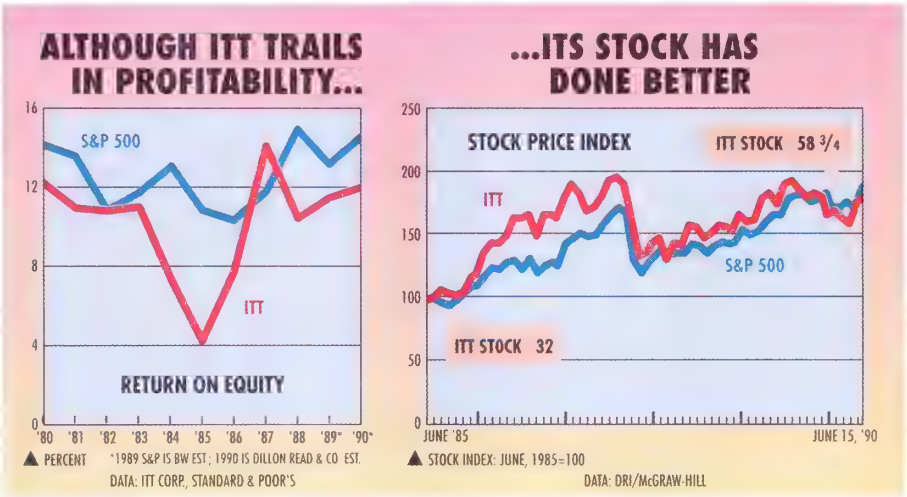
HYATT'S PRITZKER: ARASKOG REJECTED HIS BUYOUT OFFER, THEN DENOUNCED HIM IN PRINT

outside agents in states where it's losing money. Until those measures take hold, the Hartford likely will do only slightly better than last year.

Another challenge for Araskog is to spruce up the Sheraton chain. While it has outstanding properties overseas and in Hawaii, the quality at its 325 North American hotels has been uneven. A hotel glut has hurt, too, pushing down the chain's earnings 17%, to $19 million, during the first quarter. Araskog says he has weeded out trouble spots by ending franchise agreements with 100 hotels since 1988. Even so, the impact will be minimal, as Sheraton only accounts for 4% of profits.

Araskog is fortunate, then, that other units are thriving. The company's pulp and timber operations, representing 17% of its profit picture, turned in 28% earnings growth last year. And ITT's Alfred Teves company, a West German maker of antilock braking systems for Mercedes-Benz, recently won new business to supply Ford Motor Co.'s light truck line.

Araskog's real trump card, though, is Alcatel. The value of ITT's 37% stake in the telecommunications venture has doubled since 1986. With the East bloc now opening up, Alcatel stands to do well. On June 19, the company signed a 20-year, $2.8 billion deal with the Soviet Union to supply switching networks and semiconductor chips. Small wonder Araskog figures ITT's remaining 30% stake, now worth $2.7 billion, could hit $5 billion by the mid-1990s. It's already a major contributor to earnings, accounting for $167 million last year.



With Alcatel on a roll, Araskog is weary of Wall Street's calls to cash out now. Alcatel promises to be a smash hit. And, says Araskog, "if the Hartford starts to pick up, it's Katie-bar-the-door." Then, maybe he can convince even a fickle Wall Street that ITT does make sense.

By Brian Bremner in New York, with Jonathan B. Levine in Paris

lly, the CIA turned Geneen down
nt on with its own plans to depose
e, who was killed during a military
ı 1973. Araskog says that when
ss held hearings on CIA activities,
ı received little support from the
: "They really left him dangling in
nd." Still, Araskog isn't an apolo-
r ITT's role in the scandal.

presence in Chile these days is
: forest operations and a Sheraton
in Santiago. Araskog has only
plans for new business.

hy is he trying to smooth things

GENEEN BEING GRILLED ON THE HILL IN 1973

over? Araskog has often advocated a greater sense of public responsibility among corporations, and he says he wants to demonstrate that in Chile. ITT has four executives, for example, on the board of Fundación Chile, which uses ITT and government money to finance new businesses. Allaying Chilean suspicions will be hard. Says one government official: "ITT is part of Chile's historical tapestry." Still, it's an effort worth making.

By Brian Bremner in New York, with Jeffrey Ryser in Sao Paulo

MANAGEMENT

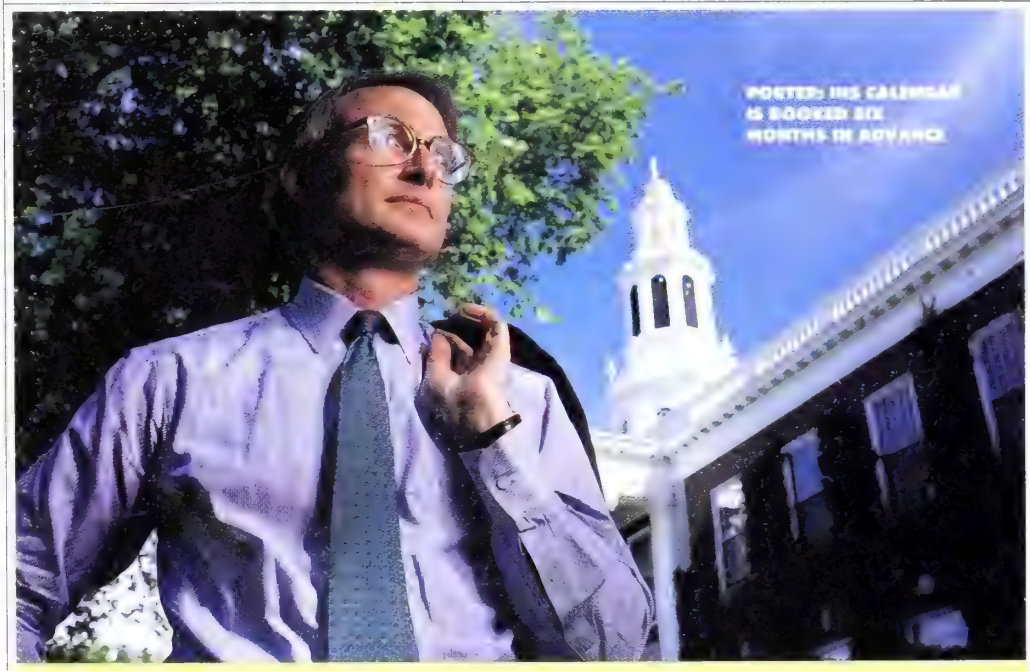
THE PROF WHO PACKAGES WHAT HE PREACHES

Harvard's Michael Porter gets rich on books, talks, and videotapes

The owlish-looking man in the round glasses and Ivy League attire could be just your average Harvard business school professor as he strolls across the campus. But look again. This is Michael E. Porter, academia's reigning king of business strategy, who is fast becoming a business phenomenon in his own right.

His jargon—terms such as five forces and competitive advantage—is the stuff that gives MBAs and corporate planners palpitations. His books are best-selling classics: The newest, an 855-page behemoth called *The Competitive Advantage of Nations*, appeared in May to a chorus of appreciative reviews. The consulting firm he co-founded is one of the fastest-growing in the country. And his mailbox is bulging with invitations offering up to $25,000 for a speech.

Even Porter, who says he wants to be remembered as a serious scholar, finds his success stunning. He calls his popularity "mind-boggling. The economic oportunities I have are truly unreal. I could spend every day giving speeches."



PORTER INC.

TEACHING As one of the Harvard business school's superstars, Mike Porter earns an annual salary estimated at $100,000

BOOKS *Competitive Strategy*, published in 1980, is his biggest seller, with 300,000 copies in print. *The Competitive Advantage of Nations* is in a 17th printing. All told, his four books have brought him over $2 million in royalties

CONSULTING Through the Monitor Co., which he co-founded, he spends four days a month with corporate clients and receives roughly $20,000 a day for his services. He owns a substantial minority interest in Monitor, which racked up revenues of $50 million in fiscal 1990

OTHER Porter typically gives 12 speeches each year, some of them at $25,000 a pop. He sold more than 2,000 video seminars at $1,500 each

DATA: BW

Indeed, with his consulting clients, hefty book royalties, and a six-figure salary from Harvard University, Porter is one of the highest paid academics anywhere. Since he's booked for speeches six months in advance, he has gone video. He has sold over $3 million worth of taped seminars at $1,500 a pop.

For all his success, Porter, 43, is a controversial figure—both at Harv and among some management gu They claim his first book, *Competi Strategy*, published in 1980 and with 300,000 copies in print, is root old-hat economic concepts, such as ing advantage of industries where c petitors encounter high barriers to try. His latest tome, which explains industries in some countries outperfo the same industries in others, borro generously from economist Joseph Schumpeter and others. Porter ackno edges the intellectual derivation but s his work represents a "broader, holist reworking of old ideas. It's hardly b side reading. Lester C. Thurow, dean the B-school at Massachusetts Instit of Technology, calls Porter's prose "t bid and turgid."

Some academics and outside cons tants, too, believe Porte constructs are narrow a gimmicky. "Porter's conce are developed in a busine school library, by an outsi looking in after the fact," gues Michel M. Robert, pre dent of consultants Decis Processes International Westport, Conn.

Nearly everyone, thou agrees that Porter is a mas at packaging and marketi ideas. His analytic models e gantly reduce large issues manageable questions. T five forces concept, for exa ple, sums up the interplay tween competition, the ba gaining power of supplie and other factors. "Manage love him for advancing o constructs in a way th makes them approachable says Liam Sahey, a profess at Boston University.

That's why big-name co panies such as First Bost Corp. are clamoring for P ter. At First Boston, he exa ined the financial-services i dustry, then warned the fir to steer clear of price-sens tive, commodity-like busines es, a conclusion that rei forced management's ow "He is the world's greate expert on strategies and i dustries," raves John M. Henness First Boston's CEO. Thanks to such tes monials, Monitor Co., the firm Porter c founded, has nearly doubled in size sin 1987, to 300 consultants.

Porter is no stranger to stardom. T son of a U. S. Army officer, he won a New Jersey honors in high school foo ball and baseball. At Princeton Univers

It's the best part. Which means any laser printer that doesn't contain PostScript software from Adobe Systems is missing a very special ingredient. Fortunately, every major printer manufacturer now offers a full line of PostScript printers. So call Adobe® at 1-800-952-6300, Dept. 175, for the complete list. Then you'll really have something to chew on.

POSTSCRIPT
From Adobe Systems

The Best Part Of A Laser Printer.™

"The Best Part Of A Laser Printer" is a trademark of Adobe Systems Incorporated. Adobe, PostScript and the PostScript logo are trademarks of Adobe Systems Incorporated, registered in the U.S.A.

ty, he got straight A's in aeronautical engineering while starring at golf. "If he'd continued, he could have played pro," says Don Adams, a teammate.

Instead, Porter set off for business school and an economics doctorate at Harvard, joining the faculty at age 26. He was among the first to apply traditional economic theory to management problems, explaining corporate strategy as a function of the competitive marketplace. That approach broke with the status quo at Harvard. For years, professors had taught strategy largely in terms of coordinating marketing, production, and other functions. As commonsensical as Porter's approach sounds today, the old guard fought his promotion to associate professor in 1977.

Porter gradually won over many skeptics, and they acknowledge his work has merit. But some worry that he holds too much sway. "If you're in a strategy seminar, when Mike goes to the bathroom, the discussion stops," says a former associate. Others find him distant and self-absorbed, a workaholic.

ART COLLECTOR. Indeed, an eclectic range of projects has diverted Porter from mainstream Harvard life. He once managed local rock bands and helped folk singer Tom Rush, a friend, reorient his career. A collector of modern prints, Porter's marketing advice has helped Boston's Institute of Contemporary Art quintuple its budget since 1983. He still spends a day a week consulting at Monitor. Though popular among students, he teaches just one MBA class a year.

The research for his latest book was largely an independent effort. Says Porter: "I can't say I got a lot of excitement and encouragement" from peers at Harvard. Five years in the making, it took the efforts of more than 50 researchers in 10 countries, resources attracted by the Harvard name and what Porter himself calls the "Michael Porter brand." Porter's argument: Traditional theories based on cheap labor or government intervention fail to account adequately for a nation's competitive advantage.

What next for the strategy king? Porter has no plans to leave Harvard but adds he could be enticed by the right opportunity in business or national government. Or perhaps an academic dean's post. He's co-authoring four spin-off books from *Nations*, each tailored for a single country. Otherwise, he says, he's cutting down in an attempt to spend more time with his wife—once a Monitor employee—and two young children.

His MBA students have another notion. Last semester, they awarded him a mock-up of their idea for his next masterwork. *The Competitive Advantage of Planets*, they called it. Porter says he's not interested. Yet.

By Keith H. Hammonds in Boston

Marketing

COMPUTERS

HOW SOFTWARE IS MAKING FOOD SALES A PIECE OF CAKE

'Decision-support systems' are making the most of scanner data

Early this year, Frito-Lay Inc. had a problem in San Antonio and Houston. Sales were slumping in that area's supermarkets. So CEO Robert H. Beeby turned to his computer, called up the data for south Texas, and quickly isolated the cause. A regional competitor had just introduced El Galindo, a white-corn tortilla chip. The chip, it turned out, was getting good word of mouth—and as a result, more supermarket shelf space than Frito's traditional Tostitos tortilla chips. Within three months, Beeby had Frito-Lay producing a white-corn version of Tostitos that matched the competition and won back lost market share.

Two years ago, it might have taken Frito-Lay three months just to pinpoi the problem. Only in the past six mont has the $4.5 billion snack-food division PepsiCo Inc. finished installing a soph ticated "decision-support" system th gathers sales data daily from superma kets, scans it for important clues abo local trends, and flags executives abo problems and opportunities in all Frito-Lay's markets.

DATA OVERLOAD. Frito-Lay now h probably the most powerful knowledg gathering machine in the business, though apparently not for long. Su consumer giants as Kraft USA, Proct & Gamble, and RJR Nabisco are alrea installing massive systems to track sal blips as current as yesterday and nev

RECORDING INFORMATION IN TEXAS: FRITO-LAY IS ABLE TO TRACK SALES AS CURRENT AS YES

ler than a month ago. These systems ow executives to take advantage of e mountains of sales data from elec- onic scanners.

For over a decade, scanners at super- arket checkout counters have been col- ting data about what products are be- r bought at what price. But at first ftware didn't exist to present the in- rmation in a form marketing manag- s could easily use. Consequently, says hn D. Little, professor of management Massachusetts Institute of Technol- y and a director at Information Re- arces Inc., "the first scanner reports re delivered by forklift trucks." And, adds, they were mostly ignored.

By the mid-1980s, A. C. Nielsen Co. d others had developed stems to sort out data by and. Since then, though, e amount of scanner in- rmation has increased nething like five hundred- d," says Danny L. Moore, elsen vice-president for oduct development. Week- rather than monthly, ta are available, providing ch specific details as how ny cans of 32-ounce ego tomato sauce with shrooms were sold in a given store in a particular week.

To manage this rising tide of data, Nielsen and software makers, Information Resources and Metaphor Computer Systems, have recently developed "quasi-expert systems" (table). These automatically break down brand performance within regions and detail how competing products are doing, which promotions work, and whether specific store displays are attracting customers. They also generate summary reports with graphs that highlight unusual product performance.

Marketers welcome these systems. Kathleen Mocniak, research and analysis director at Planters LifeSavers Co., recalls how executives had to wade through lists of numbers for relevant figures on regional performance. It was, she says, like "trying to get a drink of water from a fire hydrant."

Frito-Lay's experience shows how useful these systems can be. Updated daily on handheld terminals by 10,000 Frito-Lay salespeople, information on 100 Frito product lines in 400,000 stores appears on company computer screens in easy-to-read charts. Red means a sales drop, while yellow is a slowdown, and green is an uptick.

These daily snapshots have accelerated the information flow. Two years ago, says Michael H. Jordan, president of PepsiCo Worldwide Foods, "if I asked how we did in Kansas City on July 4th weekend, I'd get five partial responses three weeks later." It's still too early to know the system's impact on the bottom line, but Jordan says it eliminates a day of paperwork from each salesperson's weekly schedule.

Local Frito-Lay brand managers have persuaded Beeby and Jordan to tighten relations with parent Pepsico to make even better use of the new information. About 7,000 Pepsi salespeople are scheduled to use the same handheld input system as Frito-Lay within the next two years. Then, the data from the two decision-support systems could be combined so managers at both companies can cooperate—possibly on promotions, discounts, and coupon campaigns.

BAD PRACTICES. Food companies hope these systems will further strengthen their influence with the supermarkets. Kraft, for instance, has been using data from its software system to help such chains as Kroger Co. and Pathmark. decide how to stock their refrigerated section most effectively. Michael L. Blyth, Kraft's vice-president for trade marketing, wants to increase Kraft's leverage even more by supplying his sales people with a decision-support system that will generate even more details faster on Kraft products and the competition.

The systems also help giant companies compete better regionally. Tri-Sum Potato Chip Co. in Leominster, Mass., sells snack foods in central Massachusetts. But since Frito-Lay has been using its decision-support system to improve local promotions and expand its share of shelf space, Tri-Sum President Dick Duchesneau has found it much tougher to compete. "We don't have the resources that they do to shove products down people's throats," he adds.

But some marketing consultants argue that the new systems could end up hurting their users as well as the competition. They say the systems aggravate bad practices—especially the tendency to focus on short-term gains at the expense of building long-term brand loyalty. The software systems, by providing narrow windows of data, "reinforce this quick-fix orientation," says Jonathan R. Copulsky, a principal in Booz, Allen & Hamilton's Marketing Intensive Group.

And marketing systems still can't replace human decision-making. Even if the sales data are only one day old, relying on them is akin to "driving a car while looking through the rearview mirror," says MIT's Little. Also, computer systems may not pick up certain factors that affect sales, such as a region's economic health. But even though the systems have their glitches, they are very powerful weapons. Superior technology wins wars—even tortilla chip wars.

By Jeffrey Rothfeder and Jim Bartimo, with Lois Therrien in Chicago and Richard Brandt in San Francisco

SOFTWARE FOR MARKETERS

To interpret the flood of sales data now available from supermarket scanners, marketing companies are installing powerful software systems. Here are the most prominent programs:

EXECUTIVE INFORMATION SYSTEM

Frito-Lay developed this software with Comshare to track its own products' performance day-by-day. Frito-Lay salespeople gather the data from stores. Executives track the data on PCs

MARKETING ADVISOR

A. C. Nielsen is testing this software with RJR Nabisco's LifeSavers division. It tracks sales by region and highlights important changes. The data are gathered monthly from 3,000 supermarkets

COVER STORY

Information Resources Inc. is selling this program to companies such as lotion maker Jergens. Cover Story summarizes important trends in sales data collected monthly from 2,400 supermarkets

DATA: COMPANY REPORTS

LDER THAN A MONTH

THE HOTTEST MARKET FOR U.S. SOFTWARE COULD BE—JAPAN?

That's where American companies are setting up shop to maintain their world leadership

When U. S. software giant Computer Associates International Inc. first looked to the Far East nearly a decade ago, few American software companies dreamed of selling directly to the Japanese. Weighing the risks of the alien landscape, CA gladly handed its products over to Japanese distributors and hoped for the best. Meanwhile, it concentrated on the greener pastures back home.

Now, the greenest pastures may be in Japan. Last fall, CA spent $2 million on lavish new offices in one of Tokyo's poshest neighborhoods and doubled its Japanese staff to 44. It plans to triple that number within two years and is building a software institute for 100 engineers. To attract the best and brightest, "we'll offer the top students scholarships to U. S. universities," says Derek Schneideman, CA's managing director for Japan.

STAMPEDE. What attracts CA—and dozens of others—is the huge opportunity in the Japanese software market. At $13 billion in annual sales, it's one-third the size of the U. S. market, but it is growing much faster. And while the American market is expected to double in the next five years, the Japan Information Service Industry Assn., a trade group, predicts that Japan's will increase 150%, to $33 billion annually.

Those predictions—and the success of companies such as Lotus Development Corp. and Microsoft Corp.—have inspired a mini-stampede. About 50 U. S. software makers have already set up offices in Japan, and 15 of these operations were launched in the past year.

The most favorable trend for the Americans is the growing demand for packaged software—canned programs such as Lotus 1-2-3. Until recently, Japanese businesses have relied on custom-crafted programs, but the Ministry of International Trade & Industry now predicts a severe shortage of programmers. By 1995, MITI says, the nation will have 1 million fewer softwa engineers and programmers than needs. That plays straight into the hand of American companies. Without th personnel to write custom program Japanese businesses will buy mo American-style packages. And it's ground-floor opportun ty. The Japanese ma ket for packaged sof ware "is only 5 penetrated," estimate John A. Siniscal, regio al vice-president fo Dun & Bradstreet Sof ware Services' new Ja anese subsidiary.

SCHNEIDEMAN AND JAPANESE COLLEAGUES

A BOOK. Siniscal an other U. S. executive see more in the Jap nese market than ju the next hot growth o portunity. Succeeding Japan—and thereb preventing the rise of strong local package software industry could be the best wa for U. S. suppliers to keep the staggering 70% share of the wor market. "We all have an interest preserving the U. S. computer bus ness," says CA's Schneideman. "O way is to ease the way for oth U. S. vendors into this market."

Indeed, a handful of U. S. exec tives in Japan have co-written handbook to encourage other Ame ican software makers to join t party. The book is scheduled f publication next month by the T kyo branch of the American Ele tronics Assn. (AEA), an indust trade group. It emphasizes th even small companies can make in Japan. For instance, it cites A pen Technology Inc., a tiny Ca bridge (Mass.) maker of compute aided engineering software, whi set up a Tokyo branch in 1987. Ev before its products could be "Jap nized," Aspen's client list doubl each year. Now, Aspen gets on fourth of its revenues from Japa

Still, setting up shop in Tokyo

SELLING SOFTWARE IN JAPAN ISN'T EASY...

- Programs must handle *kanji* characters, which take up twice the space of an English word
- Japanese prefer custom-built software, not one-size-fits-all packages
- They demand higher quality and more customer support than do U.S. customers
- Costs of doing business are higher than in the U.S., especially office space in Tokyo

...BUT THE REWARDS CAN BE BIG

- The Japanese software market is expected to jump more than 150%, to $33 billion, by 1995
- Success in Japan may help in Korea, Taiwan, Hong Kong, and China
- Sales to a Japanese multinational in Japan can lead to sales at subsidiaries around the world
- Success in Japan increases clout with hardware vendors worldwide

DATA: AMERICAN ELECTRONICS ASSN. AND JAPAN INFORMATION SERVICE INDUSTRY ASSN.

; like opening a branch in Schenecta- Startup costs—rents, office equip- nt, and salaries for bilingual secretar- —are astronomical. And translating glish language software into cumber- ne *kanji* characters is time-consum- and expensive. American executives o need to know enough about Japan's rky cultural practices to avoid embar- sing gaffes.

But Americans are finding that it's rth the hassle to set up a direct sales ration or joint venture in Japan. In past, U. S.-based companies relied avily on local software distributors t claimed they could sell more effec- ely to Japanese customers. Now, the A book advises, companies should deal ectly in Japan. "I have spent the last months traveling back and forth to pan, and I don't feel at all threatened the culture," says Gadi Maier, Oracle rp.'s Japanese business development nager. Oracle, a maker of data-base tware, is one of many U. S. suppli- that are planning to cut back deal- 's with Japanese distributors in favor direct sales.

ONEWARE. A continuing concern for nerican software makers is that Japan l launch a charge on the world soft- re market. MITI's efforts to boost Jap- ese software technology have shown le payoff, but Japanese software is proving. One reason is the success of U. S. suppliers. Frequently, their st sales prospects are the giant Japa- se electronics and computer conglom- tes that are likely to lead the soft- re push. These "customers require a more hand-holding than in Europe or nerica," notes CA's Schneideman. hat places us in the business of trans- ring technology."

Adobe Systems Inc., the Mountain ew (Calif.) supplier of typographic tware for laser printers, is particular- worried about that. In the 15 months ce it set up a subsidiary in Tokyo, it s sold its Postscript package to hard- re giants such as Fujitsu, NEC, Ricoh, l Canon who resell Postscript with eir printers and computers. But the ne companies are also trying to invent stscript knockoffs. "There's one divi- n that licenses from us and another it's trying to develop a similar prod- ," says Adobe Japan's general man- er, Minoru Tomijima. "We are creat- our own enemies."

But learning to keep ahead in such a rket should help Adobe and other nerican software companies in the ng run. "If we lose out here, we ll end up fighting Japanese rivals in r own backyard," says Tomijima. en in software, the best defense is a od offense.

By Neil Gross in Tokyo, with Evan hwartz in New York

Commentary/by Jeffrey Rothfeder

CONGRESS SHOULD PUT A LID ON WHAT CREDIT BUREAUS LET OUT

When the 1970 Fair Credit Reporting Act was written, the consumer law's authors couldn't foresee today's explosion in credit-card use or the way technology has advanced. And no one could have anticipated that selling information out of credit reports would become such a big business—and such a big threat to privacy. So at hearings that began on June 12, a House banking subcommittee is readying the first changes in this landmark legislation in 20 years.

TRW, Equifax, and Trans Union —the nation's Big Three credit bureaus, which are governed by the FCRA—have a lot riding on the outcome. And considering their clout in Washington, "anything that radically affects the way they do business is not likely to slip through," says *Privacy Journal* editor Robert Ellis Smith. Mainly, the Big Three want to maintain what has become a lucrative business: reselling pieces of data from credit reports to direct marketers and credit-card providers. Traditional credit-report sales are flat, but revenues for these activities go up some 50% a year.

TWISTED INTENT. But selling marketing morsels, such as the names of people earning $100,000 who have $25,000 in credit available, twists the FCRA's original intent, says the Federal Trade Commission. The law's purpose was to let consumers know what's in their credit reports and to keep this information from outsiders, except for those with permission to see it.

The cleanest solution would be to ban the sale of credit data unless it's being used to approve credit. But such a ban would be unlikely to pass. So Representative Richard H. Lehman (D-Calif.) offers a compromise: He proposes to let credit bureaus sell marketing data from credit reports, but only with written permission.

That solution makes almost nobody happy. Credit bureaus say it would cost too much to implement, and privacy advocates say it's too weak. One alternative has surfaced: Create a marketing credit report containing little private information, which the credit bureaus could sell freely.

NO TRAIL. The credit bureaus are resisting most restrictions, but some changes in the FCRA are "inevitable," admits D. Barry Connelly, senior vice-president of Associated Credit Bureaus Inc. The price individuals pay for credit reports will probably be lowered—or eliminated. What's more, delinquent-credit information will likely be erased more quickly. Now, 30-day delinquencies on credit-card bills remain on record for seven years. Under a proposed FCRA amendment, they may be deleted within three. And credit-repair clinics will no doubt be watched more carefully. These companies offer to help clean up bad credit records, but the Big Three say the clinics sometimes encourage people to lie to credit bureaus.

An FCRA rewrite could go a long way toward protecting privacy by regulating so-called superbureaus. These information companies sell credit reports obtained from the Big Three and leave no audit trail. Lehman proposes that each time a credit report is obtained, the name, address, and purpose of the requester be listed on the report.

The Big Three say no way. They admit that superbureaus need policing but prefer to do it themselves. They'll agree to curb superbureau excesses by doing better background checks before selling data to them.

Trouble is, these procedures still won't achieve what consumers deserve: the right to know who's looking at their credit reports and why. Without that, even an updated Fair Credit Reporting Act will remain outdated.

CHANGING THE FAIR CREDIT REPORTING ACT

Current rule	Possible reform
CONSUMER COPIES OF CREDIT REPORTS	
Now cost up to $35, unless credit has been denied recently	One free copy a year. Additional copies for about $8 each
ACCESS TO CREDIT INFORMATION	
Sold to marketers and financial services firms	Couldn't be sold without the consumer's consent
SUPERBUREAUS	
Don't identify clearly the buyer of credit report	Must list report buyer's name and purpose

DATA: BW

ENVIRONMENT

FIXING THE HOLE WHERE THE RAYS COME IN

The global pact to end CFC use includes aid for developing nations

When representatives from 75 countries gather in London on June 27, they'll have ample reason to celebrate: They will sign an accord that dramatically strengthens a global drive to protect the Earth's fragile ozone layer. The pact will call for eliminating within a decade a class of widely used chemicals that destroy the ozone shield. And it will set up an international fund of at least $200 million to help less-developed countries (LDCs) join the campaign.

But the champagne and bonhomie will mask some critical—and as yet unresolved—disputes that still separate the industrialized world and the LDCs. Developing countries are demanding some say in how the money will be spent. Meanwhile, companies in the industrialized nations worry that the aid could give LDC manufacturers a competitive edge in world markets. And the Bush Administration doesn't want the package to become the first of a wave of international environmental funds for efforts it prefers to see financed by existing aid programs. So the U. S. delegation will push to ensure that the accord doesn't set a precedent. The parties are "all negotiating like hell," says one U. S. official.

LEVERAGE. The bargaining is over proposals to toughen a 1987 treaty signed in Montreal. That agreement slashes the worldwide production of chlorofluorocarbons (CFCs) in half by 1998, from 2.2 billion pounds in 1986. When CFCs, used as coolants in refrigerators and car air-conditioners, and in the cleaning of electronic components, are released into the atmosphere, ultraviolet light breaks them down. Their chlorine molecules then attack the ozone layer, which shields the earth from the sun's cancer-causing rays. Since the pact was inked, destruction of the ozone layer has accelerated. That has prompted the proposal to ban production of CFCs and new uses for them by the year 2000—except in LDCs, which will get an extra decade.

Industrialized nations are footing the bill for phasing out CFCs, but developing countries have considerable leverage. The LDCs need CFCs to modernize food delivery, among other things. China wants to make 300 million refrigerators over the next few years. Projections show that if industrialized countries start phasing out CFCs but the LDCs don't go along, the LDCs' share of world CFC use will soar from 15% to 50% by the end of the century. That could leave chlorine levels slightly above the current level of 3.5 parts per billion units of air (chart).

A Bush Administration campaign against an aid fund, led by White House Chief of Staff John H. Sununu, threatened to ruin any deal. India, China, and other developing nations have refused to sign the pact without financial support, fearing that CFC substitutes will cost a lot more—two to five times as muc U. S. industry, environmentalists, and i ternational leaders put intense pressu on the White House. And on June 15, backed down.

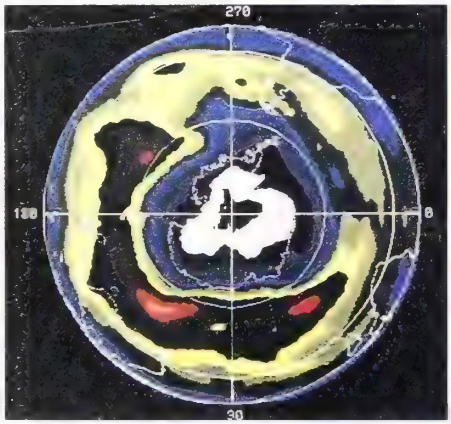
As currently conceived, the aid pl would help LDCs subsidize the purcha of CFC replacements and the building new plants to produce everything fro refrigerators to aerosol cans. "Some a sistance is necessary to move the dev oping nations into high gear," says K vin J. Fay, executive director of t Alliance for Responsible CFC Policy, coalition of U. S. chemical and produ makers. Millions more could be add over the years to the initial $200 milli in loans and grants, with the Wor Bank probably distributing the money

'STRINGS ATTACHED.' Big fights could o cur over how that's done. The LDCs wa the funds to be distributed equitabl And they want the right to decide which projects they'll spend their gra money. That's a sore point with indust alized countries, which fear that fun subsidized plants could churn out pro ucts that would undercut their export This could happen, for instance, grants and low-cost loans enabled dev oping nations to produce goods below U. S. or European manufacturer's co U. S. trade negotiators are attending t meeting to protect U. S. export market

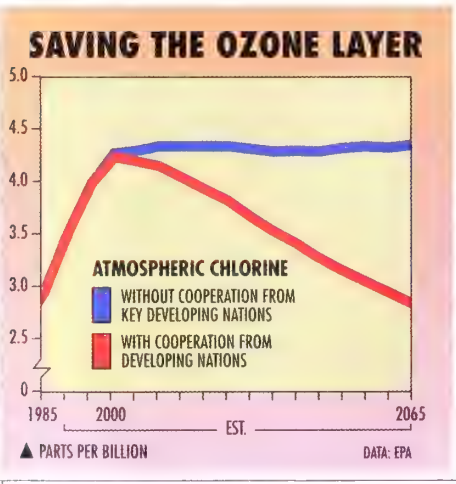
The assistance "has to come wi strings attached," says F. Anthony V gelsberg, environmental manager f Du Pont Co.'s Freon Products Div. K CFC producers such as Du Pont and A lied-Signal Inc. don't want the LDCs ma ing CFC substitutes any time soon. Th contend that plants being built in t U. S. and England for the earliest subs tutes are hard to run and present ris of explosion. U. S. companies are relu tant to build such plants elsewhere un they have experience operating the safely.

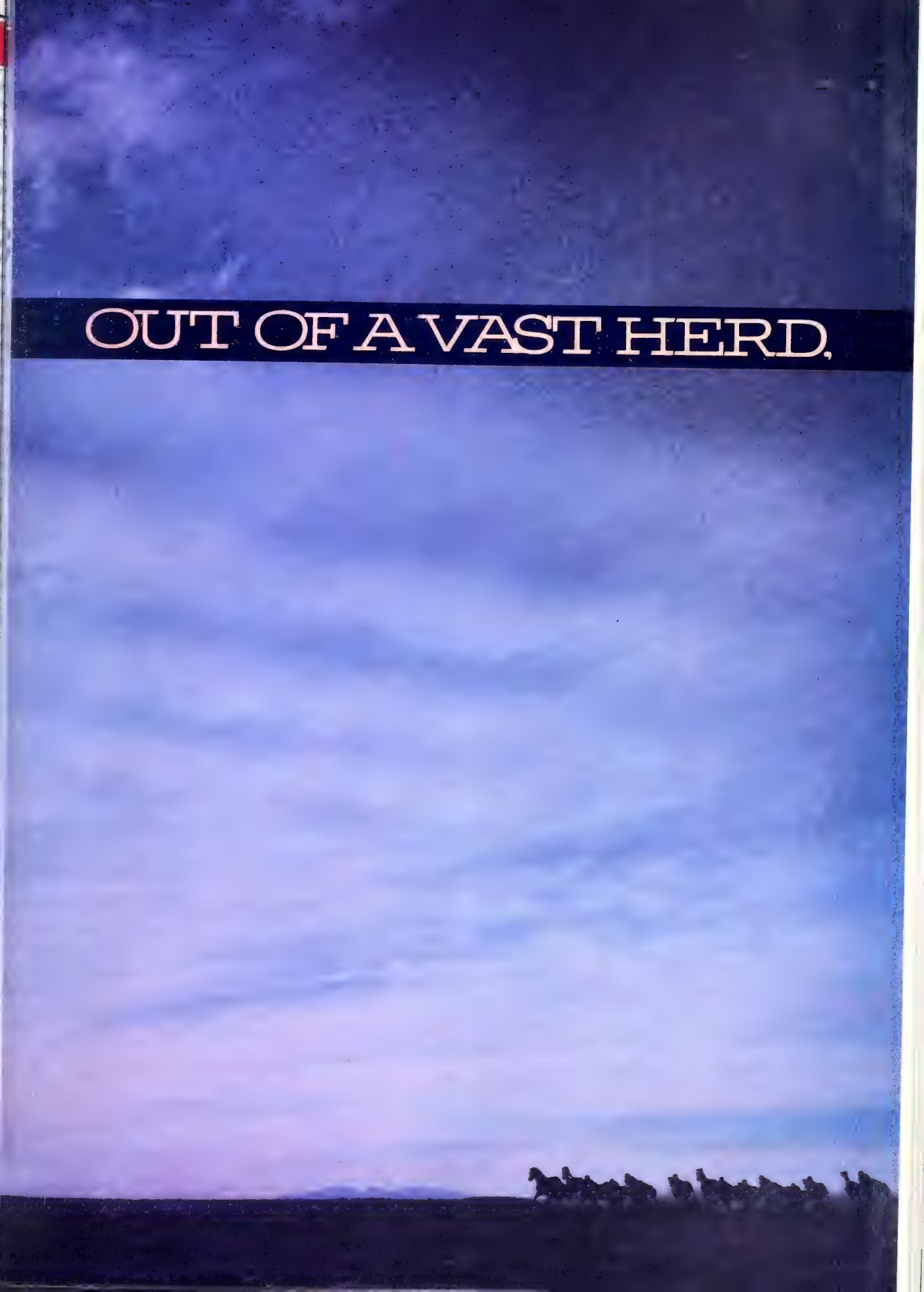
Despite these differences, negotiato and observers expect a compromis "Both sides have too much to gain says David D. Doniger, senior attorn with the Natural Resources Defen Council. In fact, he and other exper think that Third World nations—and nancial aid for them—will be decidi factors in other environmental debat including a crucial round of negotiatio on global warming set for this fa The Bush Administration may not li this drift. But it probably cannot much about it. The outcome of the C negotiations will undoubtedly lay t groundwork for international accor over climate change and other enviro mental issues.

By Vicky Cahan in Washingt

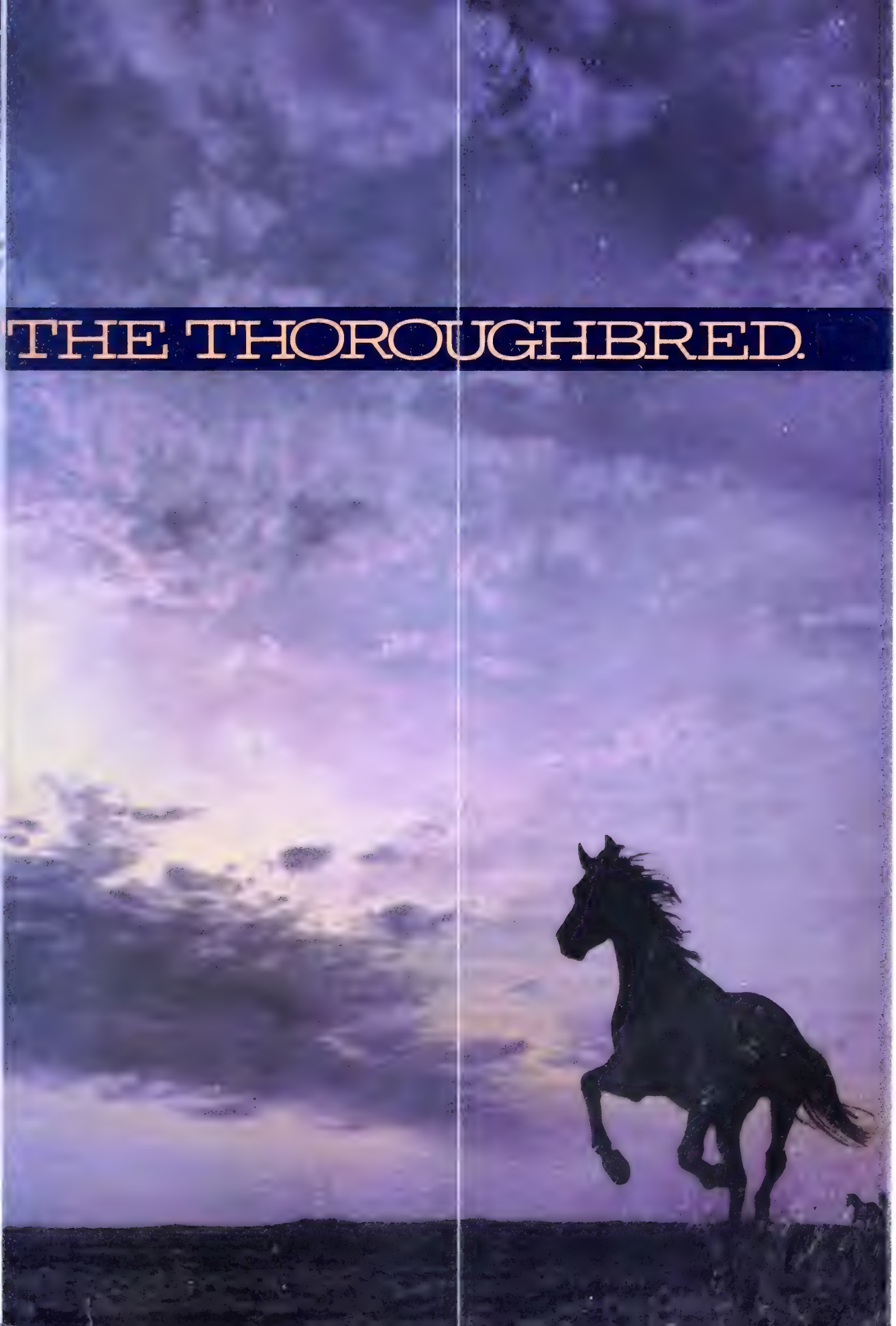


WARNING SIGN: A NASA SATELLITE'S MAP OF THE HOLE IN THE OZONE OVER ANTARCTICA




OUT OF A VAST HERD.

ONE BECAME



TASS/SOVPHOTO

©1990 Norfolk Southern Corporation. Three Commercial Place, Norfolk, VA 23510-2191. Norfolk Southern Corporation is a Virginia-based holding company that owns all the common stock of and controls two major operating railroads, Norfolk and Western Railway Company and Southern Railway Company, and a motor carrier, North American Van Lines, Inc. The two railroads form a single interterritorial system, extending over 15,600 miles of road in 20 states primarily in the Southeast and Midwest, and the Province of Ontario, Canada. North American provides household moving, truckload general freight and specialized-handling freight services in the United States and Canada, and also offers certain motor carrier services worldwide. Triple Crown Services, Inc. is a subsidiary of Norfolk Southern Corporation. RoadRailer® is the registered trademark of The Chamberlain Group, Inc. for the transportation equipment used and certain related terminal services.

NORFOLK SOUTHERN

The Thoroughbred of Transportation.

HE RUSSIAN CONNECTION: SOVIET COSMONAUTS ABOARD MIR HELPED ROW PROTEIN CRYSTALS DURING PAYLOAD SYSTEMS' EXPERIMENT

A HITCHHIKER ON RUSSIAN ROCKETS

Can U.S.-based Payload get off the ground with Moscow's help?

A few years ago, a small Massachusetts company called Payload Systems Inc. saw an opportunity n packaging scientific experiments for ights in space—an ideal setting for nany types of research. It hoped to use ne space shuttle, but that fell through vith the 1986 Challenger disaster. So the Cambridge (Mass.) outfit took the next est step: It went to the Soviet Union.

The Soviets had a space station called Mir, plus a desperate need for hard curency. So for just under $1 million, they ccepted a 56-day experiment that Payload funded itself. In February, two cosnonauts successfully harvested protein rystals that may be useful in producing rugs to fight bacteria. And Payload has oom reserved on five more Soviet lights, which may help in its seemingly ndless struggle to attract paying clints. Asserts President Anthony P. Arott: "We're in the best position to take non-Soviet payloads to the Soviets and get them flown."

Scientists studying everything from nicrochips to lasers see advantages in pace labs. They are free of contaminating dust, and the lack of gravity makes t easier to work with delicate chemical structures without breaking them. That should provide a good niche for Payload, a subsidiary of privately held Space Industries International Inc. of Houston.

Founded in 1984 by biomedical engineer Arrott and astronaut Byron K. Lichtenberg, Payload is among several companies that hope to succeed by designing space experiments, making the custom equipment used in them, and lining up the earliest possible flights. The only problem has been justifying the cost. Payload will charge up to $1.5 million a mission, but it claims the benefits are worth it. It underwrote the experiment on Mir to prove the point.

FAST ACTION. Once the shuttle became mired in delays, Arrott signed a six-flight contract with Licensintorg, then the only Soviet agency authorized to deal with the West. Soon, he was handed off to NPO Energia, the agency that has engineering responsibility for Mir. Still, it was only 20 months from the original contact until last Dec. 20, when the unmanned Soviet rocket Progress ferried a Payload minilab to the space station from the Baikonur Cosmodrome in the eastern republic of Kazakhistan. That compares with a minimum wait of two years with NASA. And now, Arrott expects even faster turnarounds.

> Eventually, similar experiments might be performed on the U.S. space station Freedom

Such quick response will mean nothing, however, unless Payload can lure some clients. That's why it chose drug research for its first ride—in hopes of attracting pharmaceutical companies. Recently, scientists have struggled to shorten the process, which sometimes takes decades, of developing new drugs by manipulating the specific proteins that relay disease-inducing instructions to cells. The key lies in understanding the complex structure of the proteins. The best bet is X-ray crystallography, a technique that involves draining a protein of its liquid to produce a crystal. Researchers can then scan the crystals with X-rays and decode structural details from the pattern of reflected beams. The problem: Often, their efforts are thwarted when the crystals warp or break under the forces of gravity.

Attempts to avoid this have led scientists from the U. S., West Germany, and Japan to try growing crystals in the weightlessness of space. But most such efforts have taken place over only a few days. With its 56-day Mir experiment, Payload set out to document the benefits of longer-term research. The project, designed by Arrott, centered on d-amino transferase, a particularly complex protein that bacteria need to proliferate. By unraveling its structure, researchers hope to develop drugs that short-circuit a bacterium's ability to use the protein to reproduce itself.

NO VERDICT. The Payload results match the best crystals produced in earth labs—and space techniques are improving rapidly, says Barry L. Stoddard, a biophysical chemist at the University of California at Berkeley who analyzed the crystals. Still, drugmakers aren't absolutely sold on the approach. Better protein crystals provide an edge, concedes Manuel A. Navia, a senior scientist at the Cambridge drug-design company Vertex Pharmaceuticals Inc. But, he says, "how dramatic that edge will be remains to be seen."

It will take more study to provide the answer. Eventually, similar experiments might be performed on the U. S. space station Freedom, which is to be assembled and conducting research by 1996. But for now, the Soviets have cornered the market on long-term crystal research in space. And for those willing to pay the freight, Payload has lined up the best lab in the galaxy.

By Gary McWilliams in Cambridge, Mass.

TASS/SOVFOTO

Developments to Watch

EDITED BY EMILY T. SMITH

CLEARING UP CLOUDY VISION —WITH MICROWAVES

Microwaves may become as useful in the doctor's office as in the kitchen. Researchers at Dartmouth College's Thayer School of Engineering are exploring the use of tiny energy waves to treat severe cases of nearsightedness and farsightedness.

They have built a device that generates microwaves to permanently shrink interior portions of the cornea, the clear outer surface of the eye. People become near- or farsighted when the curved, ½-millimeter-thick cornea becomes too long or too flat. By using microwaves to heat-shrink portions of the cornea, Dartmouth researchers think they can reshape it without damaging its surface. More tests are needed before the treatment can be used on humans. But B. Stuart Trembly, the associate professor of engineering science who holds a U. S. patent for the device, believes that within five years, microwave treatments could be an effective alternative in the most severe cases to laser surgery or wearing bottle-thick eyeglasses.

FILL 'ER UP WITH NATURAL GAS, PLEASE

Gas guzzler suddenly has a new meaning in Colorado. In June, Natural Fuels Corp. opened the pumps at its first station selling compressed natural gas. The new company, a joint venture of Public Service Co. of Colorado and Colorado Interstate Gas Co., intends to establish 80 natural-gas stations in the state by 1996, aimed at commercial car fleets. It will also open centers to convert vehicles to burn natural gas.

No major auto manufacturers yet produce such vehicles. And it costs about $2,000 to convert a car and $3,500 for commercial vehicles. But Rejeana Gable, president of the Denver-based company, sees lots of potential anyway. Natural gas costs about one-third less per gallon than gasoline, which means that commercial vehicle owners can earn back their investment within three years. Equally important for the smog-plagued Denver area, natural gas burns cleaner than gasoline, creating significantly less nitrogen oxide, carbon dioxide, and hydrocarbons.

A LESSON FROM THE RAIDERS: CUT SPENDING—BUT NOT ON R&D

Hostile takeovers triggered a flood of shortsighted policies in the 1980s. As managers whacked away at any expense that wouldn't fatten next quarter's bottom line, research and development was a perennial target. Yet there is a lesson to be learned from corporate raiders, assert two senior consultants at Arthur D. Little Inc.: By emulating the raiders' tactics—trimming corporate staff and overhead and restructuring to focus on fewer core businesses—it's possible to boost R&D and shareholder value at the same time.

Acting on this insight will be crucial to future growth, ADL's John L. Forbis and Alan M. Cody. Companies that p some of the savings from restructuring into new technolog can realize real growth of 6% to 8% per year, even in mat industries. But, the ADL consultants warn, passing up s opportunities will limit growth to about 3% and invite takeo attempts. One key problem has been excessive reliance portfolio theory—trusting that losses in one business will offset by gains in others. Restructuring a company, s Forbis, takes away the crutch. And that provides a "stron incentive to invest in renewal."

A TINY LASER THAT PACKS A MIGHTY WALLOP

Lasers—ultrapowerful beams of light—just got more tense. Using a technique developed by University of Mi gan Professor Gerard A. Mourou, a French-American team researchers at the Centre d'Etudes de Limeil-Valenton in meil, France, recently created the world's most powerful las a 20-terawatt beam only 9 centimeters in diameter. That b the most intense previous laser, which had a 15-terawatt pu but spread its beam over a much wider diameter. One teraw equals 1 trillion watts. To create that power without resort to larger and more costly systems, researchers produced la pulses in short bursts of 1 trillionth of a second. Then t "sliced" the bursts up and spread them out so their durat was 1,000 times as long. After amplification, the sliced pulses were compressed back into 1-trillionth-second bur creating a tiny beam of unrivaled power.

The new laser moves scientists closer to a key goal: creat three-dimensional snapshots of living cells. Eventually t hope to combine the penetrating power of X-rays with las to produce a laser-like X-ray machine that can see cells work. The brevity of the new laser beam allows a fas "shutter speed" for sharper pictures of molecular activity.

THESE 'KAMIKAZE CHEMICALS' LURE BAD ENZYMES

Enzymes perform critical jobs in the body, but they can also wreak havoc. For instance, one family of enzymes attacks proteins, causing blood clots, emphysema, and organ-transplant rejection. Now, researchers at the Georgia Institute of Technology have created chemicals that capture these enzymes, then self-destruct. These "kamikaze" chemicals eventually may become a new breed of pharmaceutical.

Georgia Tech chemist James C. Powers designed a chemi called Acitic that inhibits the enzyme thrombin, which cau clotting. Acitic lures thrombin to attach to itself, then "plodes." In animal tests, Acitic prevents clotting. And the n chemical works much faster than existing anticoagula drugs. That would be an advantage in surgery or for patie who are susceptible to blood clots. Acitic "turns coagulat off immediately," says Powers. If the drug is stopped, clott begins in a few minutes. Now, Powers and others are devel ing related chemicals that target other enzymes.

IMING TAXES TRAIGHT AT THEIR TARGETS

ıey're being tied to specific tasks—and voters are going along

magine a store that sells nothing but grab bags—sealed packages that can't be opened until after they're id for. No matter what's in the bag— electric can opener, a clock radio, a x of matches—the customer has to ep it. In all likelihood, anyone with a ɔice wouldn't shop at that store. For ımy Americans, that's what paying ɛes feels like—big outlays with little ıtrol over how they're being spent. That's why, increasingly, state and lo- governments are opening up the bag making sure their tax ɛreases are earmarked r specific purposes. ther than just paying big government, tax- yers want to know that eir dollars are going fix their highways, ıools, or parks. And re- ıt votes show that with ɛse assurances, taxpay- ; are willing to approve increases.

ORGASBORD. The Cali- nia electorate, for exam- , on June 5 approved a per-gallon gas-tax hike raise $15.5 billion over years for highways and ıss transit. But voters ln't give the state gov- ıment a blank check: e revenues are being geted to specific transportation programs, including a detailed list of projects that were part of a 1988 plan that ran out of money.

Massachusetts is taking targeted taxes even further. Facing a staunchly anti-tax electorate and no hope of additional aid from a deficit-ridden state government, many towns and cities are offering voters a choice of tax increases, each pegged to a different program. Recently, Springfield voters approved tax hikes earmarked for fire, police, and the municipal hospital, among others, but rejected funds for the building and health departments. "People are willing to pay for services when they know what they're getting," said Springfield Mayor Mary Hurley.

Some towns have put as many as 44 separate earmarked taxes up for vote. And in well-heeled Chatham on Cape Cod, officials even asked townspeople to approve a tax increase of $3,950 to cover expenses for the Chatham band, a group of volunteer musicians who give outdoor concerts in the center of town every Friday night. The band won more votes than any other item on the ballot.

NO GAIN? The new state taxes don't just target highways and schools. A new tax hike in Florida will help fund health care programs. And California voters face the prospect of a ballot initiative in November that would boost alcohol taxes, with the money going to deal with substance-abuse problems (table).

But even as tax-targeting sweeps the country, some experts are wondering whether voters are being fooled. That's because targeted taxes often end up providing no net increase in funds for their intended programs. Take the state lotteries. Many were trumpeted as ways to finance education. But after a couple of years, says education expert Michael W. Kirst of Stanford University, the lottery take simply replaces general revenues that would have been spent on education anyway. Notes economist Helen F. Ladd of Duke University: "People were misled into thinking that education spending would be higher."

Still, tax experts agree

TAX TARGETING PICKS UP STEAM

CALIFORNIA A June 5 gas tax hike of $15.5 billion, over 10 years, is earmarked for highways and mass transit. In November voters decide whether to boost alcohol taxes to pay for alcohol and drug problems

FLORIDA Increased cigarette and alcohol taxes, with part of the revenue dedicated to low-income and children's health care

MASSACHUSETTS Towns and cities are asking voters to approve tax increases for outlays ranging from road work to parks and recreation

MONTANA Imposed an income tax surcharge to help finance schools

NEVADA November ballot will include an initiative to impose a corporate income tax and earmark the proceeds for education

OKLAHOMA Recently increased sales and income taxes by $205 million to aid education

TEXAS Targeted a $528 million sales and cigarette tax increase, signed into law June 7, to aid poor school districts

VERMONT A new tax on heating oil and other fuels will help pay for insulating private homes

DATA: BW

MARK STELLE

that a carefully administered earmarked tax can boost spending for specific programs. In Texas, for example, a new $528 million sales- and cigarette-tax increase is likely to raise total funding for schools, as intended, since the state court that originally mandated school reform will monitor spending.

This close link between targeted taxes and spending makes them more acceptable to a wide range of politicians and economists, including free-market enthusiasts who usually oppose any tax increase. Targeted taxes force voters and lawmakers to take account of the price tags of programs they favor, just like a consumer at a store. Says conservative economist Robert D. Tollison of George Mason University: "The more government can be made to work like private markets do, the better."

TOUGH TARGETS. Of course, earmarked taxes won't close state deficits. California is facing a $3.6 billion budget shortfall this year, but the transportation funds voters just approved can't be used to fill the gap. Instead, state legislators are considering raising corporate and individual taxes by another $2.3 billion.

And not all budget items lend themselves easily to earmarking. Voters and legislators are unlikely to ever target taxes for higher welfare payments. Tax enforcement, even if it produces large amounts of revenue, would probably also not stir much popular support.

Certainly, some pressing federal budget needs are not good candidates for targeted taxes. "How do you raise taxes for screw-ups like the S&L mess?" asks Frank Shafroth of the National League of Cities. Even when some federal taxes are targeted, they may not be spent as promised. Receipts from the gas tax and airplane-passenger tax are earmarked for highway and airport trust funds, but $24 billion in these funds is being used instead to shrink the budget deficit.

What about a targeted tax to close the budget gap? That could be a hard sell. "People are prepared to support a tax increase for a purpose they believe is necessary," says House Budget Committee Chairman Leon E. Panetta (D-Calif.), but he adds that most people don't see the deficit as a menace to their well-being.

The recent success of earmarked taxes leaves little doubt that voters are less opposed to tax hikes than they once seemed to be. But even if targeted taxes can solve local needs, they're unlikely to replace broad-based state taxes. What they offer is a convenient way to deal with special problems close to home.

By Michael J. Mandel in New York, with Geoffrey L. Smith in Boston, Robert D. Hof in San Francisco, and Douglas Harbrecht in Washington.

CAN LARRY PERLMAN MAKE CONTROL DATA MAKE SENSE?

He fixed some ailing units and sold them, but what's left is a puzz

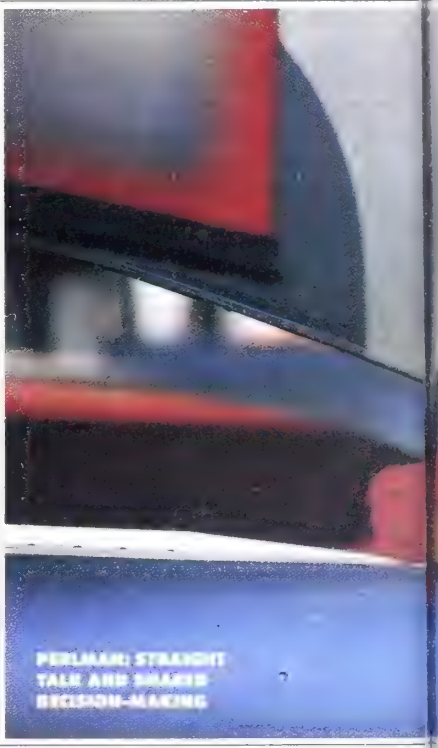
Peering through high-power binoculars, Lawrence Perlman presses against the window of his 14th-floor office in suburban Minneapolis to spy on a bald eagle perched in the cottonwood trees across the water. Peregrine falcons swoop through his line of sight, leaving their nest above his office to hunt in the marshes below. The birds hold special meaning for Perlman. An avid outdoorsman, the chief executive of Control Data Corp. has chosen the predator to symbolize a new vision for his despair-ridden company. Outside his office hang four posters he recently commissioned to inspire his sales force. They show an eagle, a bear, a leopard, and three wolves in various stages of attack. "Be the predator, not the prey," they read. Signed: "Larry Perlman."

It has been a long time since Control Data has gone for anyone's jugular. In the 1960s, the company was the young lion of the computer world. Armed with the industry's fastest computer, designed by its star engineer, Seymour R. Cray, Control Data dominated the science and engineering market. But in the early 1970s, Cray left to form his own company, and founder William C. Norris plowed into an ill-fated diversification. Meanwhile, Control Data's markets were ravaged by competitors.

BITTER GOODBYE. The '80s were even worse. Losses over the past five years totaled a staggering $1.5 billion, and the stock has withered. Morale is low, too: Workers remain embittered by $13 million in severance granted former Chairman Robert M. Price, who many say did little to rescue the company.

Throughout the decade, Control Data's most promising executive has been Perlman, 52. From 1983 to 1985, the former general counsel turned around Commercial Credit Co., Control Data's finance business. Next, he fixed the Imprimis Technology Inc. data-storage unit, trimming 17 product lines down to six. Both units were later sold for much-needed cash. Named president in 1988, Perlman got the board to close or sell more than a half-dozen operations, which helped avert loan defaults. Since becoming CEO in December, he has closed additional units, leaving Contr Data with 18,000 employees, down fro 60,600 in 1981. This year's revenues w total around $2 billion, 40% of those 1983. But Control Data will also show i strongest profit since 1983—about $ million, analysts estimate.

Now, having sold off huge pieces the company, Perlman must forge strategy that makes sense of what left. Control Data's eight remaining o



erations all involve computer hardwar or software but have little else in com mon. They include the Arbitron Co. radi and TV ratings service, a payroll-service unit, an automated wagering operatio and the computer business, which pr vides mainframes and minicomputers t science and engineering users. "He' working with sort of a strange jigsa puzzle, and nobody's sure if the piece even fit together," says friend an neighbor John A. Rollwagen, chairma of Cray Research Inc.

Perlman doesn't pretend to have a the answers. For now, he says, his pla

o work on boosting profits at each of remaining units. But "Control Data no one business large enough or ortant enough strategically to serve the core or growth engine," says lman. Over the next year, he plans to oint strengths and build on them.

Iany have faith in him. "We finally e someone who is more than willing ake action," says Coleman M. Brandt Lehman Ark Management Co., which is about 10% of Control Data's stock. ks with employees at offices and fac- gates found that, despite low mo-, many are bullish on Perlman. Says ineer Orry J. Ranniger: "If Perlman 't rescue the company, no one can."

'erlman has won trust with an open e of management that includes week- informal meetings with lower-level oloyees. He promises no retribution straight talk, and when workers e, he responds. One example: Price's 'erance hit employees particularly 'd because they were forced to take a ek off without pay in 1989 to help the npany through its financial bind. Perl- n granted them five extra paid holi- 's over the next 18 months.

'ontrol Data's CEO seeks to share de- on-making, condemning the "Lone nger" style of management that he 's has pervaded business: "The Lone nger solved problems and rode out. ien he left in his cloud of dust, the ple were no more able to solve the t problem than before he came."

'erlman, whose face has been slightly paralyzed ever since he was slammed to the mat in a college wrestling match, is a tough competitor. Yet he believes businesses will be managed better when executives value qualities traditionally regarded as feminine. "These include intuitive or nonrational decision-making, as well as the capacity to show emotions," he says. By denigrating such qualities, Perlman says, male managers stifle innovation and slow women's progress in the corporate hierarchy.

While Perlman is a sensitive manager now, his earliest days were marked by overweening ambition. Growing up in St. Paul, Minn., he served as chief of his grade-school police. At Carleton College in Northfield, Minn., he beat an old high school buddy in a bruising election for class president. The loser, Stan Robins, says there are no hard feelings, "but if I had it to do over again, I wouldn't." He graduated from Harvard law school in 1963, and friends from his early lawyer days remember him as a bit brash. "He wanted to talk about expensive cars and who he flew with on the Concorde," says one. "There was a need for ego satisfaction." After graduation, Perlman worked for two law firms and spent several years at pacemaker manufacturer Medtronic Inc.

Since that time, Perlman has mellowed, embarking on what he calls a "spiritual adventure." He draws inspiration from Japanese zen masters and from *Tao Te Ching*, an ancient Chinese book of wisdom. He also has a taste for exotic adventure. He recently turned down an invitation to go river rafting in Siberia because he had already planned a fishing trip in Mongolia.

HANDYMAN. Perlman says Control Data's progressive reputation drew him to the company in 1980. Norris was an early proponent of concepts such as flextime and company-sponsored child care. But he also insisted on diversifying into businesses that Control Data was ill-suited to pursue, such as windmill farms. "What Control Data lost sight of," Perlman says, "is that you have to make a buck before you can do those other things." In 1983, Perlman was asked to tackle the cleanup of Commercial Credit. It took two years, but the division was later sold for nearly $1 billion. Perlman then turned to Control Data's $1 billion disk-drive business. The unit was losing $300 million a year and had lost its market leadership. Perlman turned it into one of the industry's top competitors, enabling Control Data to sell it for $450 million in 1989.

Upon becoming president and COO in 1988, he began making tough choices that many thought Price should have been making. In 1989, he closed the company's ETA Systems Inc. supercomputer unit, which was losing $100 million annually. Later that year, he closed or sold seven businesses, including Ticketron and Plato, an educational program that had been a pet project of Norris'.

By mid-1989, several large shareholders had begun a letter-writing campaign to oust Price in favor of Perlman. The board balked at first, insisting on an outside search before it named Perlman CEO in December. Price was to remain as chairman, but he later fled the post amid outrage surrounding his severance. No one holds that title now.

That leaves Perlman to shape the company's future. He has had some encouraging signals. Earlier this year, both Standard & Poor's Corp. and Moody's Investors Service Inc. upgraded the company's debt ratings, with S&P citing its transformation into "a leaner, better-positioned company." This year, Control Data's computer operations, which contribute 28% of revenues, will show their first full profitable year since 1985. Perlman also has $1.5 billion in tax-loss carryforwards for use in the years ahead.

Still, investors remain wary: The stock traded recently at 19, near its low for the 1980s and far below its 1983 high of 64. Perlman won't rule out selling additional pieces of the company. But for now, his priority is profits. While Control Data may be back on its feet, it has a way to go before it's ready to soar.

By Russell Mitchell in Minneapolis

TRAIL OF A TURNAROUND MAN

In his decade at Control Data, Larry Perlman has played a key role in restructuring the company. Some highlights:

1980

Hired as corporate counsel

1983–85

Cleans house at sloppily run Commercial Credit consumer finance arm. Later sold for $850 million

1985–88

Transforms data-storage group from a low quality money-loser to an industry leader. Sold for $450 million

1988–89

As president and COO, shuts hemorrhaging supercomputer operation, other poor performers.

DECEMBER, 1989

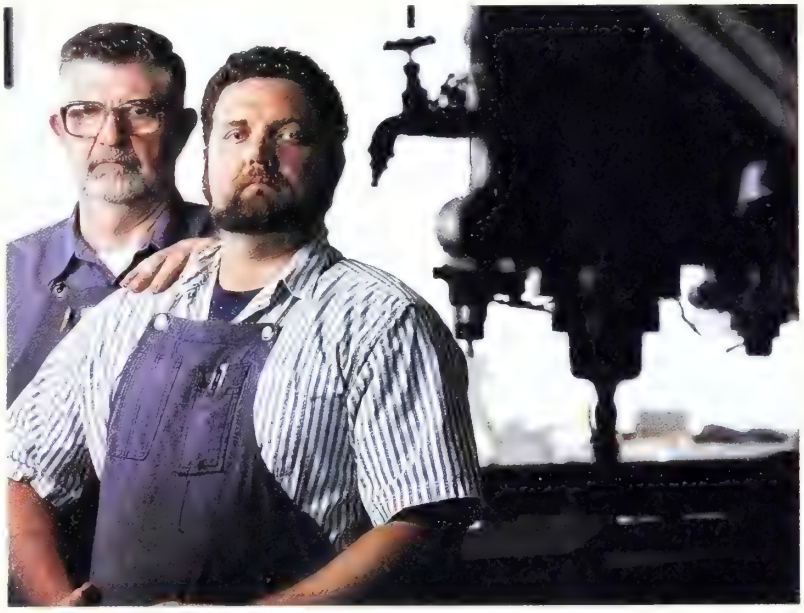
Named chief executive officer

DATA: BW

WHO PAYS FOR

The flow of new equipment into United Nuclear Corp.'s defense plant in Montville, Conn., last winter made Gail Sibley feel pretty secure about her job. Then suddenly, the Pentagon decided that it could no longer afford multiple suppliers of nuclear submarine reactors such as those made at Montville. It gave the work to Babcock & Wilcox Co., a competitor in Lynchburg, Va., and that was the beginning of the end for Sibley's company. On Mar. 16, it laid her off from her $31,000-a-year job as a programmer of electronic inspection systems. Her 1,000 fellow employees expect to end up on the street as well by 1993. Now, the single mother is trying to pay her $1,165 mortgage plus medical bills for her asthmatic six-year-old son out of a $260 weekly unemployment check. At 37, she's willing to relocate, but there isn't much demand for her skills. "Sometimes I wonder, 'Maybe I'm not as good as I thought I was,'" she says.

So much for the so-called peace dividend, the billions in defense savin made possible by the winding down the cold war. Even as politicians a economists fantasize over what to with all that money, an unpleasant rea ty is hitting home in scores of commu ties: With peace comes a lot of pain. T Defense Budget Project, a Washingt think tank, predicts that defense spen ing will fall by 13.6%, to $261 billion, 1995, and to perhaps $225 billion by t year 2000. Economic forecaster DR McGraw Hill predicts that perhaps 1 m



'SLOW DEATH' Brady Branstetter and his dad are the last ones left at Dyna-Mill, a San Fernando Valley subcontractor

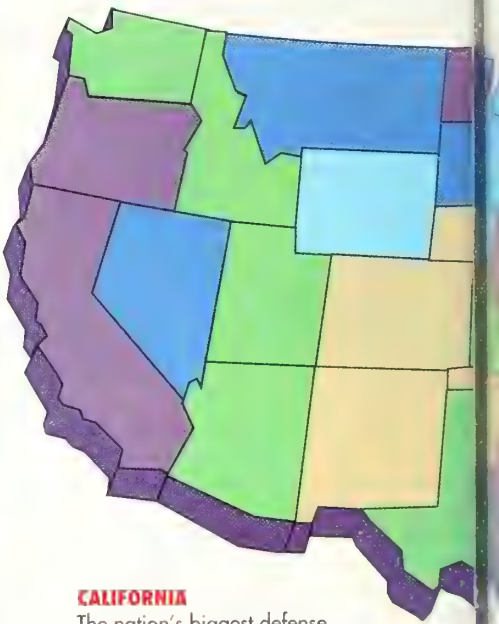
LIMBO-BOUND If General Dynamics shutter its M1 tank plant in Lima, Ohio, 2,500 jobs will be lost

THE UNEVEN IMP

DEFENSE-RELATED JOB LOSSES BY STATE
Percent loss, 1991-94

19 TO 21% 17 1

MIDWEST
The mothballing of General Dynamics' tank factories at Lima, Ohio, and Warren, Mich., will eliminate 3,000 jobs by 1993. Two McDonnell Douglas fighter projects employin 11,500 in St. Louis could be cut back by 199



CALIFORNIA
The nation's biggest defense employer will lose 120,000 of those jobs, or 17%, by 1995. Lockheed's plane unit is cutting 9,500 jobs in Burbank by 1994. McDonnell Douglas is slashing nearly 7,000 jobs in Long Beach

PEACE? MANY COMPANIES AND TOWNS ARE ON A KNIFE'S EDGE

defense-related jobs could vanish be-
en 1989 and 1995, including 830,000
he private sector, or 20% of all jobs in
ense-related industries. And the peo-
who lose them, workers with special-
d skills in building ships or guided
siles, will find few comparable jobs in
mercial industries.

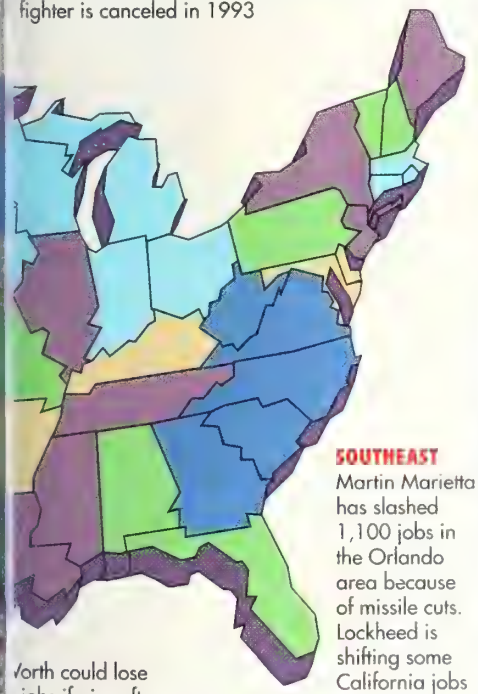
lready, towns from Burbank, Calif.,
Bethpage, N. Y., are feeling the ef-
ts. "People are anxious for peace, and
y're willing to pay a price for it—but
y aren't clear on what that price will
be," says Ohio Governor Richard F. Celeste. Ohio is finding out: Its defense employment is projected to fall by 19%, to 115,000, by 1994. Celeste calls it "the dark side of the peace dividend."

FRAGILE GROWTH. Twice before—during the 1954 recession that followed the Korean War, and in 1970, after spending peaked during the Vietnam War—sharp defense cuts damaged a slumping economy. The effect may be more muted this time, most experts think, unless defense budgets are slashed faster and deeper than now expected and the cuts are accompanied by other economic jolts, such as an oil crisis or a deepening savings and loan debacle. In fact, DRI forecasts that overall U. S. employment will grow to 126 million by 1995, up from 118.5 million in 1990. That's because plenty of jobs are being created in other sectors—albeit usually lower-paying ones. "It's going to be an economic dislocation rather than a recession," says Larian Angelo, research director at the United Electrical Workers, which has members at

DEFENSE CUTS

17% 12 TO 14% 0 TO 12%

IEAST
Nuclear plans to shutter a submarine
r plant in Montville, Conn., cutting 1,000
rs by 1993. On New York's Long Island, up
00 Grumman jobs are vulnerable if the
fighter is canceled in 1993

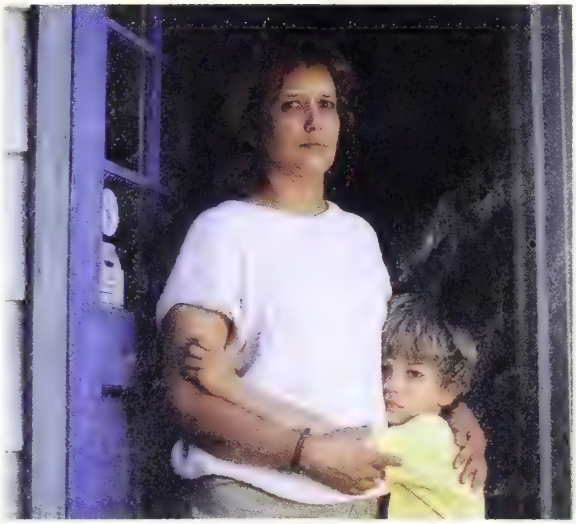


SOUTHEAST
Martin Marietta has slashed 1,100 jobs in the Orlando area because of missile cuts. Lockheed is shifting some California jobs to Georgia

Vorth could lose
jobs if aircraft
ts involving General
nics, Textron, and
g are axed

DATA: DRI/McGRAW-HILL, BW

▲ **CAST ADRIFT**
Skilled workers at the few remaining U.S. shipyards, such as Maine's Bath Iron Works, will be hit especially hard by cutbacks



◀ **UNKINDEST CUT**
Gail Sibley's job at United Nuclear's Connecticut plant ended when the Navy consolidated the work at a rival company

General Electric Co. and other defense companies.

Still, that doesn't mean there won't be serious repercussions, "particularly in this fragile economy," says Dick Greenwood, economic adviser to the International Association of Machinists. Adds George F. Brown Jr., an economist and defense expert at DRI: "If the Fed maintains an aggressive stance against inflation and keeps rates high, defense cutbacks will compound slow growth and push the economy onto a slower track."

The effect of that will be felt keenly at the big defense contractors. Former President Ronald Reagan, who raised real defense spending by 55% in his first five years in office, gave the industry a one-decade reprieve from the bone-rattling shakeup that most U. S. manufacturers went through starting in the early 1980s. While hard times rocked the Rust Belt, forcing companies to slash costs and then slash some more, defense companies got fat on government largesse. Now they're paying. Already strapped for funds and tired of scandals and supplier fraud, the Pentagon was tightening its buying policies when the Berlin Wall fell last November and put the trend on fast-forward.

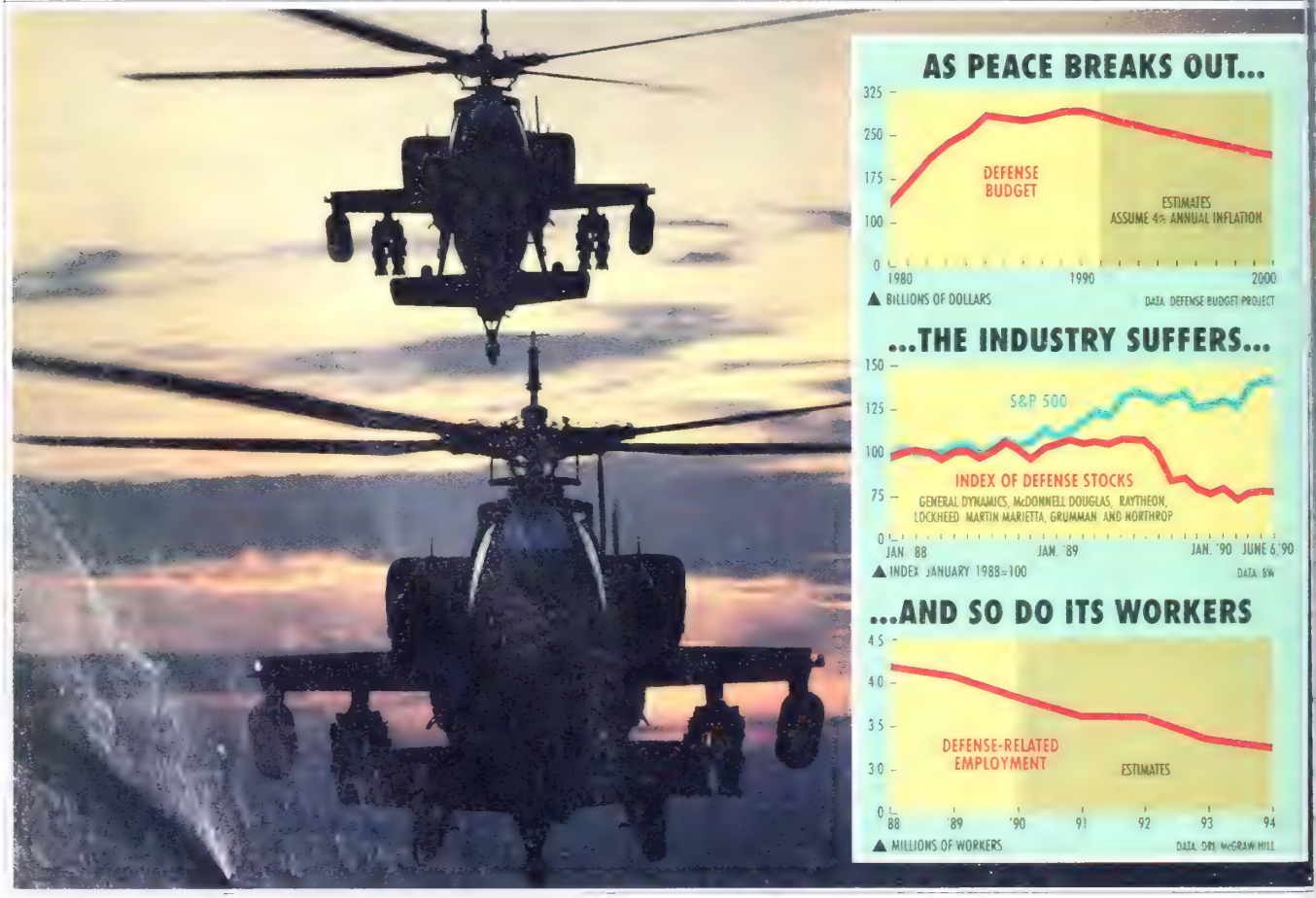
Some of the biggest contractors, such as General Electric and Boeing Co., are diversified enough to cushion the impact. New York's Loral Corp. is even prowling for acquisitions—one possibility is Ford Motor Co.'s aerospace subsidiary. "It's not as if we have all marched to the edge of a cliff and fallen off," says Bernard L. Schwartz, Loral's chairman. "The smart companies have adjusted. The not-so-smart are late."

Still, many of the purest defense companies, such as Lockheed Corp. and Northrop Corp., are on a knife's edge. Earnings are way down, and their debt has soared since the mid-1980s, owing to new Pentagon requirements for heavier company investment in weapons projects and the end of widely used tax breaks. For these companies, cutting costs is a matter of survival—as much as it was for their Rust Belt counterparts.

'TOE-CURLING.' Lockheed, for one, is in the throes of a monumental restructuring. It took $491 million in write-offs last year, all but wiping out profits on its $9.9 billion in sales, because it underestimated development costs on major weapons projects. Now, it is closing its 9,500-employee plane-making facility, including the legendary "skunkworks" at Burbank, where many of the U. S.'s most advanced spy planes and fighters have been built since World War II. Lockheed figures it can save $50 million annually by relocating the facility—w far fewer jobs—to Marietta, Ga., wh labor and housing is cheaper and en ronmental regulations are less stringe Fine for Marietta, tough on Burbank

Investors also are suffering. "T market is forecasting a toe-curling rec sion for the whole defense industr says Wolfgang Demisch, research dir tor at UBS Securities Inc. in New Yo The shares of General Dynamics, R theon, Grumman, and Martin Marie trade at price-earnings multiples of more than eight times earnings—a 5 discount to the average multiple for t Standard & Poor's 500-stock index as June 13. In fact, the collective mark value of the seven purest major defer contractors has fallen by 23% in the pa year, to $13.4 billion—even as the m ket has reached an all-time high.

In many ways, defense cuts will cau regional problems like those created the farm crisis and oil bust of the m 1980s. Just 12 states account for 64% the country's 3.9 million private-sect defense jobs. South Dakota, with just handful, will remain virtually untouche But California, with its heavy concentr tion of contractors in the Los Angel basin and Silicon Valley, will lose 120,0 defense jobs by 1994, a decline of 17 according to DRI. New England cou



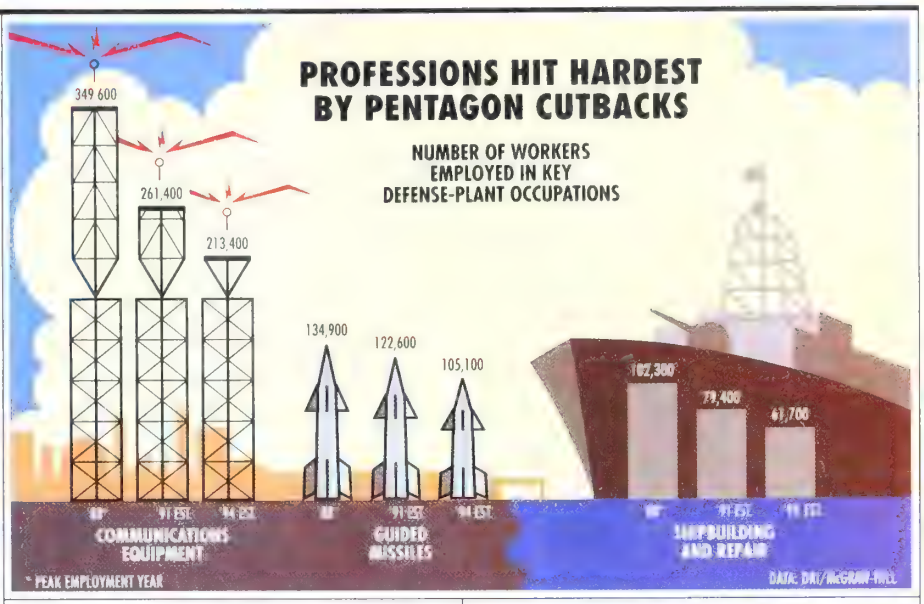
e up to 134,000 defense-related jobs 1995, a 2% drop in its nonfarm work ce, estimates the Federal Reserve nk of Boston.

Some occupations will be especially 'd hit. The Institute of Electrical & ectronics Engineers predicts that 000 of some 240,000 defense industry gineers could lose their jobs by 1995— top of thousands laid off already. en highly skilled engineers sometimes re trouble finding jobs, tainted by the 'ense industry's reputation as being eaucratic, late to market, and fre- ently over-cost. Civilian companies ink you're lazy and can't cut it in the nmercial world," says Bruce Hill, a year-old computer systems engineer h FMC Corp. in San Jose, Calif., which kes the Bradley armored vehicle.

The roller coaster Hill has been on ws the downside of trying to hang on the defense industry declines. Since ng cut loose by a Lockheed subsid- y in Austin, Tex., in February, 1988, l has held engineering jobs with ytheon in Boston, E-Systems back in xas, and now FMC. Hill and his wife, ances, have seen their income drop by e-third, on top of losing $56,000 on the ne they sold when they left Austin. w, Hill has already decided on a new eer move if he is laid off again: "My ct step is out," he says. He is thinking finishing out his career as a govern- nt safety engineer. That pays a lot s, but it's sheltered from layoffs.

ESTION AND ANSWER. Adjusting to the ace economy will be even more enching for line workers. Since few ve college degrees, the new jobs they d tend to be lower-paying. The shock especially great for defense workers ause their jobs tend to pay better n other manufacturing jobs. Says Jay Scherer, a consultant with Derson oup Ltd., which provided company- d outplacement services for Lockheed rkers laid off in Marietta in 1988 and : "The No. 1 question workers ask is, n we make as much money?' The an- er is, 'Probably not.' "

That's especially hard to take for Vivi- Rowden, 46, one of 2,250 workers at ckheed's Aeronautical Systems Co. in rbank who are scheduled to be laid on June 29. A dispatcher for 20 ars, she supports a disabled husband, on, and her elderly mother on her $16- -hour pay. And she hasn't yet found other job. "This has been devastating my family, but we'll get through h a lot of prayer," says Rowden. Pro- ction worker Jay Thomas, a 10-year eran, figures that he'll have to accept lf his $14 hourly pay—if he can find other job. That will make it tough to ep up payments on his new Toyota kup and to continue helping out with niece's college bills. Such hard-luck



tales are going to multiply before the year is out. Besides Lockheed, in the past three months General Dynamics, McDonnell Douglas, Northrop, Texas Instruments, Martin Marietta, and LTV have announced defense-related job cutbacks of 23,100.

Other defense plants are threatened. In fiscal 1991, the Pentagon plans to pull the plug on the Osprey tilt-rotor aircraft built by Textron Inc. and Boeing near Fort Worth. The F-14D Navy fighter that Grumman Corp. builds on Long Island could go, too, in fiscal 1993. General Dynamics Corp.'s tank plants in Michigan and Ohio may be mothballed until the end of the decade (page 70). And McDonnell Douglas Corp., the No. 1 defense contractor, is slated to lose funding after next year for its F-15 fighter and Harrier jump-jets built near St. Louis and its Apache helicopters assembled in Mesa, Ariz. Production on most of these programs would drag on for a few years, but that still wouldn't prevent big layoffs at the companies—and their subcontractors.

Cutbacks cause a ripple effect: For every job lost at a prime contractor, nearly three subcontracting jobs disappear

Indeed, the ripple effect of problems at the prime contractors will be wide. According to the Los Angeles Economic Development Corp., for every job lost in those companies, nearly three subcontracting jobs disappear. From Los Angeles to Long Island, N. Y., scores of small machine shops are hurting as big contractors take back subassembly jobs to keep their own workers busy.

Just ask Brady Branstetter, president of Dyna-Mill Inc., a small subcontractor near Burbank that has fallen on hard times. A couple of years ago, Dyna-Mill was a thriving seven-man shop, busy with work from Lockheed's skunkworks, Rockwell's B-1 bomber, and a contract to make landing-gear parts for Boeing commercial jetliners. Like hundreds of small aerospace shops in the San Fernando Valley, Dyna-Mill is a third-tier subcontractor, relying on business from larger subs. Business was so good three years ago that Branstetter took a $180,000 loan to finance computerized machine tools. But since then, three of the four subcontractors he did work for have folded or merged. Orders are off 70% in the second quarter, and now only Branstetter and his 61-year-old father man the shop. "It isn't enough work to keep the doors open," says Branstetter. "It's a slow death."

COMMERCIAL DISASTERS. What can companies do to offset declining defense sales? Most past efforts to diversify have been disastrous. During the post-Viet Nam slump, Grumman made defective buses, and Rohr and Boeing botched subway cars. Last year, McDonnell Douglas dumped most of its computer services business after losing $343 million in the previous five years. Rockwell International Corp. is one of the few success stories. Aggressive expansion into areas such as industrial automation and commercial aircraft avionics have helped raise nondefense sales to 75% of its total—from 50% in 1986.

One explanation for the failure of diversification attempts is the vast difference between the defense and commercial worlds. Defense contractors have built up huge bureaucracies to market to a single customer—the Pentagon—while commercial companies must be flexible enough to pitch scores of prospective buyers simultaneously. Defense compa-

LAURIE DAUNIS/BW

ON LONG ISLAND, THEY'RE BRACING FOR A SHOCK

The town of Oyster Bay, N. Y., bisects Long Island, stretching from the Gold Coast on the north, dotted with such homes as Theodore Roosevelt's former residence, to the Atlantic shores of Tobay Beach on the south. At its center, in the hamlet of Bethpage, sits defense contractor Grumman Corp., the island's largest employer. Intense lobbying last year in Congress preserved Grumman's F-14D Navy fighter contract through March, 1993, and the company hopes to continue production of a modified fighter after that. Still, it and other nearby defense suppliers are scaling back employment in the region—which means that for a while, the world's gain in peace will be Long Island's economic loss.

That isn't apparent yet, although the area lost 8,900 defense jobs last year and 5,100 in 1988. Job gains in services, finance, and government more than offset the cuts. Indeed, even though 11.5% of all jobs on Long Island are related directly or indirectly to defense, the unemployment rate on the island, at 3.5%, is well below the New York state average of 5.1% and the national average of 5.3%.

Those numbers, however, paint an unduly positive picture. Many of the people who have been laid off are in their 50s and 60s, and rather than seek new employment, they have retired. Some defense refugees have left for other states, worsening a soft real estate market in which home prices are off about 10% from a year ago. And the people who have found new jobs in the region haven't always been able to replace their incomes, since some service jobs pay poorly compared with defense manufacturing. "If you substitute lower-paid jobs for higher-paid jobs, that will tend over time to lead to a diminution of living standards," observes Pearl M. Kamer, chief economist of the Long Island Regional Planning Board.

SLOW DRAIN. With tougher times ahead, community leaders are starting to worry. Conferences have been held, briefing papers written. A bi-county commission has been set up. And Oyster Bay is spending $1 million in federal funds made available through the Job Training Partnership Act to retrain more than 300 laid-off Grumman workers. Oyster Bay's town supervisor, Angelo A. Delligatti, worries that Grumman's way of letting workers go—in a slow, steady dribble, rather than in larger cuts—could doom renewal of the program in December, even though participants find it worthwhile.

One of those is Maryann B. Lagonigro, a 20-year Grumman veteran, who lost her job in early June. For about 12 years, she was a program administrator, coordinating personnel, materials, and other needs on large projects. With few similar jobs available, Lagonigro, 48, may retrain to learn new computer skills. She can take a little time deciding, since her husband is employed and their only child is grown and married. But "we're not rich, and both our incomes are important," she says. "This will mean a big adjustment."

LAGONIGRO MAY HAVE TO CHANGE CAREERS

Possibly, very big. Steven K. Wolski, a computer operator and analyst at Grumman for four years, was laid off in a large cutback in May, 1988. When unemployment insurance and $2,000 or so in severance pay and profit-sharing ran out, Wolski, single and now 32, worked at a friend's auto-parts store and moved back into his parents' house in Massapequa Park. He has just graduated from a course to learn a second computer language, paid for by Oyster Bay, and he is going on job interviews.

For the more highly skilled professionals who have been displaced, the pickings are even slimmer. Charles A. Pleckaitis, an engineer at Grumman, hands out job leads at monthly meetings of a local chapter of the Institute of Electrical & Electronics Engineers. "It's like a support group," says one engineer, 44, who has been out of work for six months. "Knowing that we're all in this together helps, though we haven't gotten any concrete results out of it."

BRAINSTORMING. One engineer in search of results is William F. Wilkes, who last December teamed with organizational psychologist Diane F. Kramer of Nassau Community College to form the Center for Practical Solutions, a group of employed and unemployed engineers and executives. The objective, says Kramer, is to develop profitable and socially useful businesses. The group's 25 or so members are still brainstorming. Wilkes says possible projects range from developing educational software to designing new techniques for making "lumber" from plastic.

That's right, plastic. One by-product of Long Island's defense-led boom in the mid-1980s was an overflow of trash. Oyster Bay closed its landfill in 1986 and now ships its solid waste to Pennsylvania. Other towns soon will have to follow suit. Now Oyster Bay collects plastic bottles, selling them to a Ronkonkoma (N. Y.) company that recycles them into building materials.

Ironically, then, the problems caused by rapid growth in the mid-1980s could provide an outlet and income for the thousands of engineers and computer specialists laid low by the drought in defense dollars. "The key phrase [now] is sustainable growth," says Martin Melkonian, an economist at Hofstra University. Long Island may be getting the breathing room to work toward that goal. Still, not enough highly skilled, well-paid jobs may be created to replace the ones being lost. And the region's growth could slow to a pace rivaling that of rush-hour traffic on the clogged Long Island Expressway.

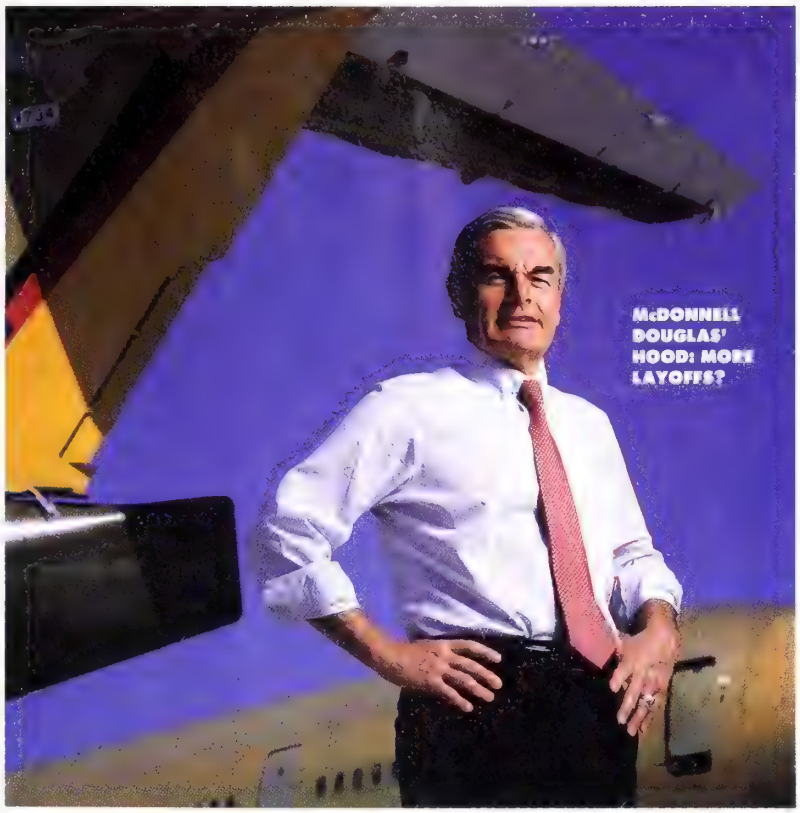
By Karen Pennar in Oyster Bay

s take up to five es longer than comrcial companies to elop new products, ording to National ence Foundation Ditor Eric Bloch. And ntractors usually ld weapons to deled Defense Dept. ecifications rather n take risks on their n designs.

Moreover, years of ing to the Pentagon e saddled many conctors with a culture t prizes technical wess above cost con-l. This has kept the npanies from adapt- well to tightened ntagon procurement. ixed-price developnt contracts in the fense] aerospace siness are very new, l I don't think comnies are very well pared to take those " concedes Robert H. od Jr., president of McDonnell Doug- Douglas Aircraft Co. Meeting the nands of the commercial market will even tougher, he adds: "In the comrcial business, it's all fixed-price."

That accounts for the trauma at uglas Aircraft itself. Like Boeing, it a huge backlog of orders for comrcial planes—plus big military orders h as the C-17 transport. But cost erruns, bloated overhead, and delays forcing it to eliminate nearly 7,000 of 500 jobs at its Long Beach (Calif.) embly plant. That's on top of a conversial restructuring in which Doug- last year fired 5,000 managers, then them reapply for half as many jobs. Nonetheless, Douglas Aircraft lost 2 million on military and commercial ne production last year and an addinal $84 million in the first quarter of s year. Now, its C-17 contract may l up being cut in half, to 120 planes. uglas is counting on its new MD-11 senger jetliner to offset such cutks, but that program is six months nind schedule, and Hood may have to er more layoffs to get costs down ther. "We have too many people mak- paper and not enough people making planes," he says.

Despite such tales of trouble, other ense contractors are now moving into v commercial markets. On June 4, ghes Aircraft Co. and Hewlett-Pack- Co. signed a joint marketing agreent that the companies hope will help l a civilian version of Hughes's nper-proof military PCs and workstations to banks, insurance agencies, and other corporate customers. Hughes also is wrapping up negotiations to form a joint venture with Rupert Murdoch's News Corp. and General Electric's National Broadcasting Co. The partners will invest $600 million and raise almost $400 million more to launch a direct-broadcast satellite service that could begin by 1993. The service will beam TV programs to any household willing to pay about $300 for a miniature receiving dish that could be placed on a windowsill or roof, plus a monthly decoding fee.



McDONNELL DOUGLAS' HOOD: MORE LAYOFFS?

USED TORPEDOES. Rockwell is continuing to reduce its dependence on defense, too. Its two huge hangars in Palmdale, Calif., where the B-1 bomber was built, have stood mostly empty since that project ended in 1988. But Rockwell has lately brought back a handful of 5,000 laid-off B-1 workers to repair and service commercial aircraft at the facility. It has a contract to do this for Federal Express Corp., and it is negotiating to service Japan Air Lines Co. 747s. If JAL signs on, Rockwell CEO Donald R. Beall expects the business to quickly grow to $200 million in sales. Union leaders say the facility could reemploy as many as 2,000 workers.

Given the defense industry's poor prospects, however, many companies just want to cash out, including Honeywell, Ford, Chrysler, and Varian. The problem is that buyers are scarce. Honeywell decided to spin off its torpedo and munitions business to shareholders after no buyers would meet its price. Likewise, Chrysler in late May removed three defense units from the block after five months of fruitless sales discussions. "If we can't find buyers willing to pay good prices, we'll hold on to them," explains John C. Stellman, Chrysler Technologies Corp.'s vice-president for finance.

Others find defense's prospects too scary to warrant holding on. J. Tracy O'Rourke, the new CEO of Palo Alto (Calif.)-based Varian Associates, decided in May to drop most of its defense operations to focus on more profitable civilian lines of electronic equipment. That accounts for a big chunk of a $74 million restructuring charge against earnings in the quarter ending June 29. "Over the next five years, Defense Dept. spending is not going to keep up with inflation, and there will be too many suppliers trying to build hardware for that demand," says O'Rourke.

Not surprisingly, given the number of jobs at stake, many state governments are jumping in with plans to ease the shift to a peace economy. Economic conversion, the idea of converting military production and retraining workers for civilian markets, was once regarded as a utopian fantasy. As defense cuts start to hit home, however, conversion is getting another look.

In the state of Washington, a conversion law went into effect on June 7, although so far the state has only allocated $200,000 to identify areas likely to be rocked by future defense cuts and start preparing

THE TOP 10 DEFENSE CONTRACTORS

Pentagon contracts received in fiscal 1989

	Billions of dollars
McDONNELL DOUGLAS	$8.6
GENERAL DYNAMICS	6.9
GENERAL ELECTRIC	5.8
RAYTHEON	3.8
GENERAL MOTORS/HUGHES	3.7
LOCKHEED	3.7
UNITED TECHNOLOGIES	3.6
MARTIN MARIETTA	3.3
BOEING	2.9
GRUMMAN	2.4

DATA: DEFENSE DEPT.

STRICK-ONYX

LIMA, OHIO: WE'RE ALL FOR PEACE, BUT . . .

David J. Berger was the newly elected mayor of Lima, Ohio, when he heard last January of Defense Secretary Richard B. Cheney's proposal to suspend production of the M1 tank by 1993. "I thought about resigning," Berger says, only half joking. The General Dynamics Corp. plant that makes the M1 is his town's largest employer. Shutting it would eliminate 2,500 jobs in already sluggish northwestern Ohio and put Lima's economy on hold. "Another plant that size is not going to drop from outer space," Berger says.

Like scores of communities dependent on the defense industry, Lima and its 46,000 residents are being thrown into economic limbo by Pentagon cuts. The tank plant's $100 million annual payroll accounts for 10% of the total payroll in Allen County. And at up to $17 an hour, GD pays more than most employers in the area. LaBarron Cox, a burly welder, worries that workers will have to settle for as little as $4 an hour from nondefense employers. "Economists say we'll all get new jobs, but their bread is already buttered," Cox says.

Technically, Lima and a sister plant it supplies in Warren, Mich., are only being mothballed. The Pentagon hopes to reopen both by the year 2000 to produce a new tank. But many folks in this town 74 miles north of Dayton fear that the plant will suffer the same fate as the steam-locomotive factories that once powered Lima's economy.

WORRIES. One worry is that skilled workers will flee. "I personally wouldn't stick around waiting on the plant to reopen," says welder Sharon Kizer. Perhaps a bigger worry is that many may have nowhere to go. "Who's going to hire people my age?" asks Robert Holmes, a graying materials handler in his 50s who came to the plant nine years ago after losing his job at a nearby Chrysler Corp. factory.

Lima Area Chamber of Commerce President William L. Bassitt believes that county unemployment could jump past 10%, nearly double the national rate and up from 7.3% now. A planned new downtown hotel and a housing-rehabilitation program that GD helps fund may be jeopardized, too. Worries Bassitt: "It could hurt confidence in the community for years to come."

Some GD employees have already put their homes up for sale, says Jim Schomaeker, a leading realtor in town. "They want to avoid the rush." Schomaeker hopes there won't be a repeat of the Rust Belt trauma of a decade ago, when plant closings dropped the value of annual real estate transfers in Allen County by 75% from 1978 to 1982.

M1 ASSEMBLY LINE: MOTHBALLED?

FINAL SAY. The pain of a shutdown would be felt beyond Lima. About 10,000 suppliers produce the M-1's 20,000 parts. Perhaps 15% of them would fail immediately and another 30% would be severely pinched, GD predicts. "We're talking about the loss of an entire industry here," says Plant Manager Charles M. Hall.

A coalition of Lima civic and union leaders, which workers call the Save the Tank Task Force, has been urging Congress to maintain M1 production. "Peace is what we all want," says Darrell Cole, president of United Auto Workers Local 2075, which represents production workers at the plant. "But we should remain ready for whatever happens." And GD has drummed up M1 orders from Egypt and Saudi Arabia.

But that may not keep the line open. The Pentagon—not GD—actually owns the plant and has the final say on its use. And because Washington wants to restart it someday, local leaders can't try to convert it to civilian goods. "Beating swords into plowshares is not an option," says Mayor Berger. That leaves Lima living on borrowed time.

By James E. Ellis in Lima, Ohio

a revitalization plan. In California, hi received $55.2 billion in defense dla last year, local and state politician a rushing to put their names on bills t would retrain displaced defense wo e One proposal would increase to $7 n lion a year, from $55 million, a pro a to retrain workers for new jobs b they get laid off, earmarking the e money for defense workers.

NAIVE IDEA? Lawmakers in Ohio an orado are also considering conve proposals. Massachusetts is fundin training for workers and consultan help small defense suppliers find native markets. "My message to gress is that we don't spend the p dividend but reinvest it in training d placed defense] workers for growt dustries," says County Executive Milford of St. Louis County, where Donnell Douglas employs more half of the county's 70,000 defense w ers. Agrees Sheldon Friedman, rese director at the United Auto Work which has 70,000 members in def plants: "Government has an oblig to workers to retrain and help them. government did, in effect, employ te people through the contracts." T conversion measures have been in duced in Congress, although they're en little chance of passage.

Despite its populist appeal, conver legislation won't bring relief to wor and communities anytime soon. Cri dismiss the idea as naive. "What is ernment going to do? Tell these cor nies they have to make refrigerato says Richard M. Allen, deputy dire for legislation at the California C merce Dept. "Ultimately, conversion be left to the marketplace."

Thus, the pattern may already be for who will prosper or fail in the to er defense climate of the 1990s. Con nies such as Northrop, which gets of its $5.2 billion revenues from the periled B-2 bomber, may have choice but to shrink.

Ohio Governor Celeste argues part of any peace dividend should spent to bolster new technologies s as high-speed rail travel, which c eventually provide alternative work shops such as Branstetter's. Others lieve a revitalized space program c replace the Reagan-era arms buildup the full-employment generator for aerospace industry. But such soluti are just dreams right now. For m contractors and displaced workers, peace dividend is a hollow prize.

By James E. Ellis in St. Louis and H Schine in Los Angeles, with Dave Griff in Washington, Barbara W. Carlson Branford, Conn., and Karen Pennar Elizabeth Ehrlich in New York

FOREIGN EXCHANGE. There's a world of evolving technology at International Paper's command. And we funnel it wherever it can make for better products for our customers. Since we acquired France's second-largest paper company, Aussedat Rey, we're sharing with them methods we've perfected for making alkaline papers that stay white for decades. And they're sharing non-impact printing know-how with us. Technology transferred between our Arizona Chemical subsidiary and its Swedish counterpart Bergvik Kemi is creating improved ingredients for products from printer's ink to chewing gum. And advanced graphics techniques developed by our people in Korea add point-of-purchase appeal to food packaging in California. When ideas fly, business takes off. **INTERNATIONAL PAPER.** Use our imagination.

©1990 International Paper Company. All rights reserved

THE WALLS KEEP CLOSING IN ON NEW YORK DEVELOPERS

With real estate in the doldrums, builders and banks are hurting

Real estate braggadocio used to be the staple of New York cocktail-party chatter. People regaled each other with tales of how much their apartments and houses were appreciating. Office developers one-upped one another comparing lists of high-paying corporate tenants. Now, that talk seems as remote as Peter Minuit's shrewd acquisition of Manhattan island.

Killings in New York real estate are in short supply these days, in both the residential and commercial sectors. From the Hudson Valley to the Jersey Shore, homes are taking longer to sell, and their rising value is a memory. In suburban Nassau County, for instance, the median price for a single-family home has dropped 6.6% from 1988's peak of $192,000.

SHEER SIZE. The most spectacular evidence of how the area has come back to earth, however, is in Manhattan. High-rise condominium buildings are as empty as mausoleums, even though residential prices slipped 11% last year and 6% for the first half of 1990. On the commercial side, the world's largest office market has a 14.5% vacancy rate, up from 8% in 1985. That's about 25 million square feet, double the entire office inventory of Atlanta. Office vacancies are even worse in the New York suburbs. The situation is echoed elsewhere in the Northeast and in big cities across the nation. While the crunch is not as bad as the 24% vacancy rate in some oil-patch cities, the New York region's sheer size means that its problems hit the investment world hard.

ONE BROADWAY PLACE: DUMPING 869,000 SQ. FT. ON THE OFFICE MARKET

The major money-center banks, traditionally big lenders to blue-chip corporations, are already accumulating sizable portfolios of nonperforming real estate loans nationwide (table). And there's not likely to be much shr age soon. Although banks have customa scattered their real est exposure throughout country, the New Y metropolitan area still counts for a fat share loan portfolios for hometown banks. At end of 1989, commer real estate loans in N York City totaled $1.7 lion, or 17%, of Ch Manhattan Bank's $ billion portfolio—Chas single biggest exposu Chase executives s they are concerned ab the deterioration in local market in the p six to eight months. Sa an official at anoth bank: "The general c sensus is we haven't se the bottom." If so, pot tial borrowers from so money-center banks m hear the echo of N York's woes when lo terms get tougher.

STALLED. Why has N York real estate tak such a plunge? Like t market in other parts the country, it's sufferi the aftereffects of 198 overreaching: A soft economy can't absorb t extra space ordered palmier times. Aggrava ing the problem is t surge in office constru tion started in 1988 take advantage of exp ing zoning incentives for the run-do Times Square area. To encourage dev opers to spruce up "the Crossroads the World," city officials permitted the to construct buildings of 20% great height or density than is normally a lowed. These projects are coming on li now. One Broadway Place, a 44-sto

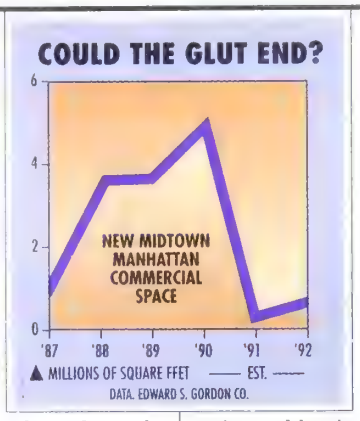
ce building near Times Square, is due ›pen this summer, throwing 869,000 are feet onto the market. The build- has no tenants signed up, according Cushman & Wakefield Inc., the large ce brokerage. Developer Eichner perties Inc. did not respond to phone s and its partner, VMS Realty Inc., ıld not comment.

he New York economy is a far cry n what it was when the building was ted. Wall Street, still reeling from decline in business prompted by the 7 crash, is suffering from a drought nergers and other deals. Some 25% of $470 million write-down that Merrill ıch & Co. took last year is tied to ented space in its World Financial ıter headquarters—space it once ıght it would need. The demise of xel Burnham Lambert Inc. earlier year threw 1 million square feet › the market. "A few years ago, one- d of my customers were from the ıncial community," s apartment broker bara Corcoran. "Late- it's around 5%." Con- ›tions in banking, ad- tising, publishing, and ailing are no help. ›n there are corpora- ›s moving away: Ex- Corp. and J. C. Pen- Co. recently moved Texas.

'he results are plain to . Developer Edward J. ıskoff's new midtown ce tower at 1325 Ave- of the Americas, a ›tory structure that ned six months ago, is › vacant. A new ten- expected in the fall ıld lower that to 40%. "Renting is ver than we anticipated," says Mins- f. While he won't discuss his finances letail, the rule of thumb is that new ldings with vacancy rates of more n 15% aren't earning enough rental ›me to service the debt. With develop- pressing to fill their space, Manhat- office rents, which climbed 44% from 0 to 1987, have since stalled at an ›rage of $37.06 per square foot.

AIT OUT THE STORM.' Owners of estab- ıed buildings are suffering, too. ›adway Management Co. went heavi- into debt to buy office buildings that ›ded substantial rehabilitation. The rket turned sour before Broadway ıld lease out much space. After the npany had trouble meeting debt pay- nts, it lost 11 of its 26 properties to a ›tner, Berisford Capital Corp. In a l estate partnership, one partner can ›e over if the other can't meet its fi- ıcial obligations.

'The stories are no less sobering in the residential arena. Time Equities Inc., a major converter of rental apartments for sale, was once a highflier but now is restructuring its debt because of unsold units. The soft market has swallowed numerous new condominium high rises. Broker Saul Stolzenberg is trying to sell an empty 66-unit building. Stolzenberg says the value of the property is $14.5 million, but the only offer he has is $6 million. "We might convert them to rental units and wait out the storm," he says. The average waiting period for a residential unit to be sold has doubled since 1987, to six months.



Lenders, especially banks, have so far dealt gingerly with strapped New York developers and building owners. Foreclosures and bankruptcy filings are rare because banks prefer to carry these large borrowers—renegotiating loans, postponing interest payments, taking equity stakes in the properties. Says Raymond C. Mikulich, a managing director at Shearson Lehman Hutton Inc.'s real estate arm: "If the banks believed in a developer yesterday, they will believe in him today." That's easier for banks than taking over property. Bowery Savings Bank discovered this when it seized seven apartments from an investor in December but found it couldn't auction them off at a decent price. So far, the bank is stuck with the units and having to pay for their upkeep.

Still, some lenders are growing restive. Look at 17 State St., a 42-story office building completed in 1987 by William Kaufman Organization Ltd. Teachers Insurance & Annuity Assn., which held the mortgage on the financial-district edifice, got frustrated by the slow rental pace and in January took over the building. Neither Kaufman nor Teachers would disclose the terms, but the latter's stepped-up rental efforts have done some good: The vacancy rate, previously 84%, is down to 68%.

1325 AVENUE OF THE AMERICAS: AFTER SIX MONTHS, IT'S STILL 65% VACANT

WINNERS. The malaise in the property market is a zero-sum game, though. If someone loses, someone else must win. Bargains abound for office renters and home buyers. Many commercial leases offer months of free rent. And landlords have doubled the amount they will spend to improve office tenants' facilities—walls, doors, electrical outlets, and the like—to about $50 per square foot. At Lincoln Towers, a 10-building residential complex where one-third of the 3,837 units remain unsold, prices are down 25% from 1988, to $105,000 for a studio apartment. Thus far, the bargains haven't sparked greater sales activity.

When will the New York market revive? Even real estate brokers, among the most optimistic species on the planet, say it will take two to three years. The market will need that much time to absorb all the new space. One positive sign is that the inventory won't expand much: New office construction is dwindling (chart). Meanwhile, law firms and foreign companies seeking space are taking up some of the slack in the market. But these days, if you go out on the cocktail circuit, you might even hear people bragging about what a great deal they got on their rent.

By Larry Light and John Meehan in New York

MONEY-CENTER BANKS: WHO'S FEELING THE PAIN

Bank	Total real estate assets* Billions	Nonperforming real estate Percent
CITICORP	$16.6	11%
CHASE MANHATTAN	9.8	13
CHEMICAL BANK	7.6	17
BANKERS TRUST	3.7	4
MANUFACTURERS HANOVER	2.7	11

* Outstanding loans and foreclosed property Mar. 31

DATA: STANDARD & POOR'S CORP.

BUFFALO

Hot Spot For Business

Buffalo is warming up to a new business boom!

Make Buffalo your business. Speak to readers all over the globe who will respond to Buffalo's surprising sizzle. Make plans to appear in the pages of the Special Advertising Section *Buffalo: The Hot Spot for Business.*

For more information, please call:
D. David Johnson, II, Account Manager
at 203-968-7141
or
Barbara J. Daly, Marketing Manager
at 212-512-6664

BusinessWeek
There is no second place.

IK BONDS

RJR MAY ROLL JUNK NTO THE RECOVERY ROOM

s performance has some buyers taking a chance on the market

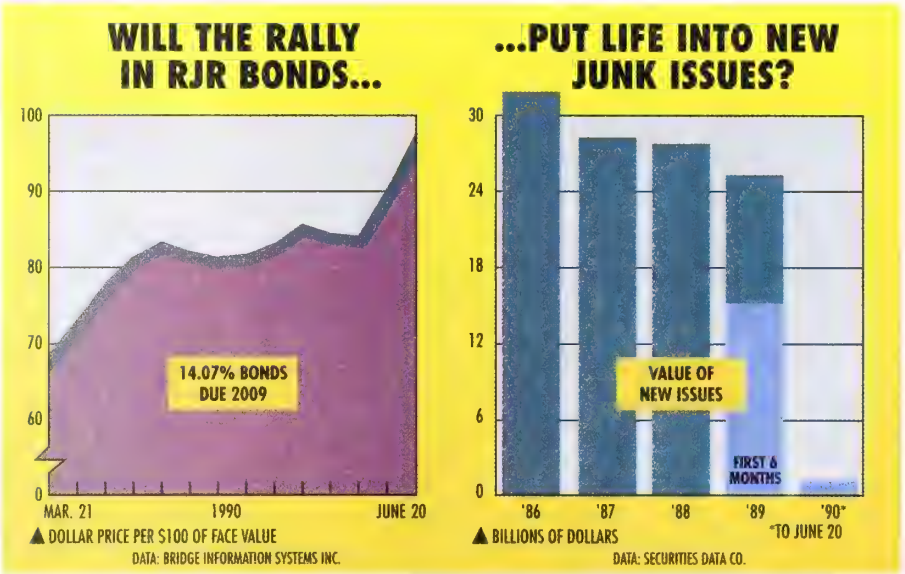
he flagship of the junk-bond market has long been RJR Nabisco Inc. With its strong cash flow and $12 lion of bonds outstanding, there is lit- doubt that if RJR can't attract inves- s, the rest of the depressed market esn't have a prayer. Thanks to the ep pockets of its chief investor, Kohl- rg Kravis Roberts & Co., RJR is mak- ; headway at overcoming the dol- ıms that have beset its bonds. Can rest of the market hope to trail ng, too?

In short, some bonds can and some ı't. The latest response to RJR's plans buy back some of its debts has a ıader message for other junk-bond is- ers or would-be issuers. The strong l get stronger, but the weak can't ect much good news soon.

To some extent, RJR's position may be ique. Like plenty of other junk issues, bonds, bearing coupon yields of 14% more, were trading at well below face ue. But in RJR's case, its bonds con- n a clause forcing them to raise the ıpon payment next year if they are l below face value. RJR is better posi- ned than most issuers, however, be- ıse the cash flow from its cigarette l food businesses is strong—and it s received good prices so far for the erations it has sold off. Finally, on ıe 20, RJR announced it would tap into resources and get a minimum of $1.7 ion in new money from KKR to enable to buy back debt. Its bond price s already shot up nearly 34% since SINESS WEEK first reported in March ıt the plan was in the works. The lat- news lifted the price another $5 on $100 face value, or 8%.

The increase was the most investors in market have had to cheer about in nths. "Anything that makes a bond de up five points makes me ecstatic," ys Kenneth Urbaszewski, who man- es Kemper Financial Services Inc.'s h-yield mutual fund. Ecstasy didn't ister everywhere. Prices of Safeway res Inc. bonds, an issue that most estors consider to be just a cut below in quality, barely budged.

Don't count the rest of the market out ite yet, though. RJR's performance has own that investors will still buy junk when the risks seem manageable. And that lesson could benefit the host of potential issuers who have assiduously avoided jumping in. So far this year, the new-issue market for junk bonds has shrunk to $1.1 billion from $15 billion in the first six months of 1989 (chart). "By itself, RJR's move won't revive the new-issue market. But it will reinforce an already improving tone," says Martin S. Fridson, managing director for high-yield research at Merrill Lynch Capital Markets.



If Fridson is right, the beneficiaries could include a wide range of companies. Judging by those that recently borrowed through high-yield debt sold directly to private investors rather than in the public markets, companies such as retailers and manufacturers may find the welcome mat out. For example, Caldor, a retailing chain that did a management buyout, recently borrowed $300 million in the private placement market. This will be a different breed of borrowers from those of the late 1980s, though. "We will see the best quality issuers, just the way the market developed in the early 1980s," says Paul H. Ross, a managing director at Salomon Brothers Inc.

> 'By itself, RJR's move won't revive the new-issue market. But it will reinforce an already improving tone'

HANGING ON. Whether the RJR glow spreads to secondary junk bonds depends on a fickle commodity: investor sentiment. The money that RJR and KKR are paying out to bondholders will join an already sizable flow of new money into the market. Robert Long, managing director for high-yield research at First Boston Corp., calculates that $20 billion will be paid out in interest payments on junk bonds in June, one of the biggest months of the year for payouts. Long expects bondholders to reinvest much of this money in junk to hang on to the high yields they have been receiving.

And they will have fewer good quality bonds to choose from. The recent purchase of Beatrice Co. by ConAgra Inc. shows why. The credit-rating agencies are reviewing Beatrice's B-rated bonds. There is a strong possibility that they will graduate to the investment grade category and out of junk-bond territory. That would take $251 million worth of bonds out of the market.

For a widespread rally to get under way in junk bonds, other issuers may have to mimic RJR's approach of injecting more capital into junk-financed companies to allay the fears of investors. "Now this is a much safer deal," says John Canning, president of First Chicago Venture Capital, a KKR investor. Unfortunately, not every company will be able to replace their froth of the late 1980s with real money.

By Leah J. Nathans and David Zigas in New York

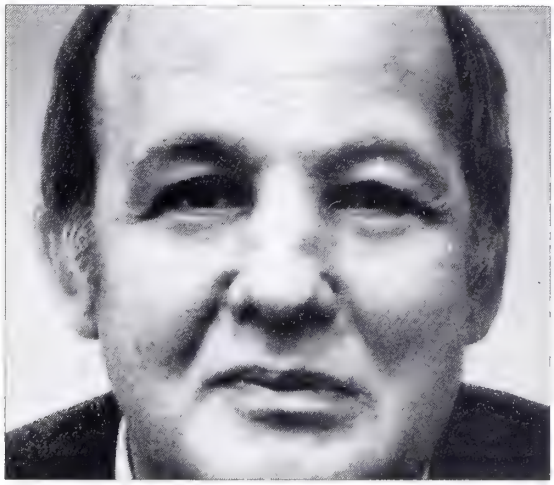
PAUL LEFRANGE/BW

I learned to talk again.

I learned to walk again.

I learned to read again.

But I won't succeed in my next challenge without your help.



Jim Brady, former White House Press Secretary, Vice Chairman, N.O.D.

That challenge is to increase the acceptance, dignity and participation of more than 40 million fellow citizens with disabilities. ☐ A group whose number I never expected to be among, but a bullet meant for President Reagan changed that in one second. ☐ I'm back at work now. And I'm out to increase the acceptance of all Americans with disabilities. ☐ We can be some of the most productive people around and can contribute more to business and society — if you let us. ☐ Join the companies listed to the right who have already become Business Partners with the National Organization on Disability. ☐ This small investment has a great return — the participation of America's largest minority in the mainstream of the U.S.A. ☐ How's that for a good deal all the way around?

☐ Please add my company's name to the list of N.O.D.'s Business Partners.

☐ Enclosed is our membership check payable to the National Organization on Disability for:

_____ $1,000 _____ $2,500

_____ $5,000 _____ $10,000

N.O.D., 910 Sixteenth Street, NW, Suite 600, Washington, DC 20006

Company name

My name

Title

Address

NATIONAL ORGANIZATION ON DISABILITY

Our thanks to Business Week for the generous donation of this space.

HE GENE JOCKEYS ARE INALLY SEEING SOME GREEN

ars of biotech research pay off as drugs hit the market

ust two years ago, biotechnology was a dirty word on Wall Street. Darlings for nearly a decade, the sh gene jockeys had lured investors h tantalizing potential. But they med to be genetically engineering ning but red ink. Now, the Street's air with biotech is hot again—and is are that it will be more than a mer fling. So far this year, leading ech stocks are up more than 30%, n most of the rise coming in the last months.

he reason: Investors finally see real ducts and earnings on the horizon. irs of promising research are now coming fruition with drugs address a wide variety of scourges, from mia to rare hereditary disorders. And since Roche Holdings Ltd. agreed to pay billion for 60% of ientech Inc. in ch, the whole industry has basked in glow of that valuation. "The technology ears to be working," says Michael Gor-, who runs Fidelity $125 million Select technology Fund. t sentiment has ed his fund grow so far this year, a 2.5% increase for Standard & Poor's stock index.

mgen Inc., whose stock is up 53% year, scored a dramatic success last r with its anemia drug erythropoietin or EPO. The company rang up $190 ion in sales in EPO's first 12 months he market. For the fiscal year ended . 31, Amgen earned $17.2 million, or 1 a share. Chiron Corp. has just introduced its new test for hepatitis C, and kely to turn the corner on profits this rter. Chiron's stock has doubled in past year, to 36, on the strength of test and the company's promising s vaccine research.

ther companies such as Centocor, Immunex, Genzyme, and Xoma could break into the black next year, all from new drugs (table). And analysts expect Cetus and Genetics Institute to be profitable by 1992. The payoff for Cetus is expected to come from its cancer agent interleukin-2; GI believes that its gene-spliced Factor VIII, a drug for hemophiliacs, will be a big winner.

Even some smaller, second-tier biotech stocks are attracting investors. Synergen Inc., for example, won't be profitable until at least 1993, but its stock has surged to 12 7/8 from its low of 4½ last year. The Street likes its portfolio of products addressing inflammatory diseases and other disorders. For the most part, however, investors are keeping their distance from companies whose profits are still far off.

Nevertheless, a handful of biotech startups are poised to test the waters with initial public offerings in coming months, according to investment bankers. "Now you can point to biotech's [recent appreciation] and say, 'Get on board,'" says Richard A. Bock, a veteran biotech stockbroker at Sutro & Co. in Los Angeles.

PATENT LATHER. Investors impressed by the bright scenario for biotech, though, should beware of messy patent fights, which could cloud earnings potential. For example, both Xoma Corp. and Centocor Inc. are pursuing products to fight septic shock. Xoma has recently filed suit, claiming Centocor is infringing a key Xoma patent.

While even the best biotechnology companies need a long incubation period, when products work, the payoff can be enormous. With so many investors on Wall Street looking for stocks that are immune to recession, biotech shares may offer just the vaccine they want.

By Joan O'C. Hamilton in San Francisco

BIOTECH STOCKS ARE ON THE RISE

Company / Product area	Stock price Jan. 1	Stock price June 20
AMGEN — Anemia	49	75½
CENTOCOR — Septic shock	25	43
GENETIC INSTITUTE — Blood and bone growth	34⅛	37½
GENZYME — Hereditary disorders	14½	18¾
IMMUNEX — Immune system	19¼	26
XOMA — Septic shock	21¾	23

DATA: BRIDGE INFORMATION SYSTEMS INC

N.O.D. BUSINESS PARTNERS
Aetna Life and Casualty
Allegheny Ludlum Corporation
American Express Company
Amoco Corporation
Amway Corporation
Arthur Andersen & Company
Apple Computer, Inc.
Aristech Chemical Corporation
AT&T
Austin Company
Bell Atlantic Corporation
BellSouth Corporation
Benjamin Moore & Company
John Blair Communications, Inc
Blue Cross and Blue Shield of Michigan
BP America Inc
Bristol-Myers Squibb Co
Business Week Magazine
Cahners Publishing Company
Canon U.S.A., Inc
CBS, Inc
Centel Corporation
Chemical Bank
Chrysler Corporation
Chyron Corporation
Cincinnati Bell Telephone
Citicorp/Citibank
Combustion Engineering, Inc
Comdisco, Inc.
COMSAT Corporation
Consumers Power Company
Control Data Corporation
Coopers & Lybrand
CPC International Inc
Diebold, Inc.
The Dow Chemical Company
E.I. du Pont de Nemours & Co., Inc
Dynamet Incorporated
Eastman Kodak Company
Electronic Data Systems Corporation
Emerson Electric Co.
Ernst & Young
Everest & Jennings Int'l. Ltd
Exxon Corporation
Fleet Charitable Trust
Ford Motor Company
Foremost Insurance Company
L.B. Foster Company
Franklin Group of Funds
Gannett Broadcasting
General Dynamics Corporation
General Electric Company
General Foods Corporation
General Mills, Inc
The Gillette Company
Slade Gorton & Co., Inc
GTE Corp
Guilford of Maine, Inc.
The Hartford Insurance Group
H.J. Heinz Company
The Henley Group, Inc
Hook-SupeRx, Inc
The Horan Engraving Company
Household International, Inc.
Kaiser Permanente—Texas Region
Kellogg Company
Kimberly Quality Care
Kirkpatrick & Lockhart
Knight-Ridder, Inc
Kraft, Inc
Lifeline Industries, Inc
LTV Steel Company
Marion Laboratories, Inc
Marriott Corporation
Marsh and McLennan Companies
The May Department Stores Company
McLouth Steel Products Corp
Meijer, Inc
Merck & Co., Inc
Merrill Lynch
Mine Safety Appliances Company
Minnesota Mining and Manufacturing Co
Mobil Corporation
Molex Incorporated
Motorola, Inc
M&T Chemicals Inc
RJR Nabisco, Inc
National Intergroup, Inc
NCR Corp
The New York Times Company
Northeast Utilities
Northern Illinois Gas
Northern Telecom, Inc
Nynex Corporation
Occidental Petroleum Corporation
J.C. Penney Company, Inc
Philip Morris U.S.A
Pittsburgh National Bank
Polaroid Corp
PPG Industries Inc
Raytheon Company
Reader's Digest
Rockwell International
Rollins Burdick Hunter Co
Joseph E. Seagram & Sons, Inc
SERD/BTS
Shell Oil Company
Sherwin-Williams Company
Silha Associates
Squibb Corporation
Stone Container Corporation
Subaru of America
Tandy Corporation
Texaco Inc
20th Century Insurance Co
Union Pacific Corporation
United States Tobacco Co
Universal Companies, Inc
UNOCAL
UNUM Life Insurance Co. of America
USF&G Corporation
Verbatim Corporation
Wal-Mart Stores, Inc
Warner-Lambert Company
Waste Management, Inc.
Westinghouse Electric Corporation
Whirlpool Corporation
White, Fine & Verville
E.B. Wilson, Inc.
William Wrigley Jr Company
Xerox Corporation

NATIONAL ORGANIZATION ON
DISABILITY
910 Sixteenth Street, NW • Suite 600 • Washington, DC 20006
(202) 293-5960 • TDD (202) 293-5968 • FAX (202) 293-7999

BY GENE G. MARCIAL

A SALOMON GURU'S ACROSS-THE-BOARD BEST BUYS

Never mind that the stock market has turned increasingly volatile and is currently seesawing around 2900. Bob Salomon Jr., the resident guru of Salomon Brothers, says the Dow Jones industrial average will hit 3200 this year. "Since last year's dramatic events in Eastern Europe, we have become very bullish," says Salomon, who thinks a reenergized bull market will sustain itself through the next two to four years. The winners, he says, will come from consumer nondurables, restructuring, and interest-rate-sensitive plays.

As chief strategist and director of research since 1982, Salomon has smartly outscored the market. His model portfolio of stocks posted an annual gain of 25.4% through the first quarter of 1990, vs. a 21.5% gain by the Standard & Poor's 500-stock index.

Since May, Salomon has taken on the added job of managing a real portfolio of stocks for Salomon Brothers' new mutual fund—the $72 million Salomon Brothers Capital Fund. This open-end fund is one of three mutual funds that Salomon Brothers purchased on May 1 from Shearson Lehman Hutton.

Salomon relishes the new role because it brings him back to his old love of managing money. Salomon was a money manager at U.S. Trust for more than 10 years before joining Salomon Brothers. "I will be running a more flexible portfolio that can invest in practically any situation," he says.

SWEET SHORT. Salomon likes some restructuring stocks others may feel are risky. One is TW Holdings, a food, vending, and medical-services company trading at 4½. It succeeded TW Services, which was bought by a group led by Coniston Partners last year. Some 35 million of the 110 million shares stayed in public hands. Salomon says it's worth twice its current price.

Another is Global Marine, an offshore oil driller that emerged from three years of Chapter 11 in February, 1989. The stock is a favorite short of some bears, but Salomon disagrees. He believes Global, now at 4¼, is way undervalued. Black & Decker, the power-tool maker that returned to profitability in the first quarter after three quarters of losses, is another Salomon pick. He thinks the stock is worth a lot more than the 16 it's selling for.

SALOMON: BULLISH ON THE NEXT TWO YEARS

Among interest-rate-sensitive stocks, Salomon has been buying American Express, trading at 30; Fund American, 34; USLife, 37; and Federal National Mortgage Assn. (Fannie Mae), 40. Among consumer nondurables, Salomon's picks include PepsiCo, 74; Philip Morris, 43; and McDonald's, 35.

Among special-situation plays, Salomon favors Ogden, a waste-cleanup company, 26; Jostens, a maker of class rings, 27; and shoemaker Stride Rite, a rumored takeover target, 25. On Salomon's nix list: companies with huge real estate exposure, such as banks.

BROAD'S BAD MOVE IS LOOKING GOOD

Investors who bought shares of Kaufman & Broad in March, 1989, when it spun off its real estate operations and renamed itself Broad Inc., got the short end of the stick. Then trading at 15, the stock tumbled to 7 within weeks. After climbing back to 12 by the end of 1989, shares of the insurance and financial-services company slumped again—to under 7 in January of this year. Why? Investors were turned off by Broad's purchase of the annuity and asset-management units of Integrated Resources.

But now, some smart-money players don't think it was such a bad idea after all. They say the acquired assets have given Broad more muscle in the fast-growing financial-planning market. Broad specializes in selling tax-deferred savings products for people planning retirement. Analysts estimate that Broad's total assets owned or under management have swollen from $7 billion to $12 billion since the Integrated asset acquisition.

The growing market for Broad's products, plus its increasing asset base, should enable the company to earn $1.20 a share in 1990 and $1.65 in 1991, says Tony Hitschler, president of Brandywine Asset Management. Trading at a modest price-earnings ratio of 5.5, Broad's stock could well double over the next 12 months, he adds. Hitschler further notes that Chairman and CEO Eli Broad, who already owns 19% of the company, has bought more shares in the open market. That, he says, is "definitely a big plus."

FOOD-PLUS-FUN FINDS NEW FANS

Back in the early 1980s, restaurants that provided entertainment and video games for patrons had more business than they could handle. The trend didn't last long, however, and such food-plus-fun eateries virtually disappeared by 1985.

Now—you guessed it—the idea is coming back, but in a slightly different form. The leader is ShowBiz Pizza Time, which operates 295 restaurants offering game rooms and shows for children from 2 to 11. So far this year, the stock has zoomed from 11 to 25. ShowBiz sees flat earnings in the second quarter, and some analysts have accordingly scaled back their estimates for that period. But some pros still think the shares are undervalued.

"ShowBiz is still very attractive, selling at only 10 times our 1990 estimate of $2.20 a share and less than eight times our 1991 estimate of $2.85," says Dennis Telzrow, of Eppler, Guerin & Turner in Dallas. ShowBiz earned $1.17 last year. Telzrow expects sales to rebound in the second half from the softness of the second quarter. He figures the stock could soon hit 35.

ShowBiz' success, he notes, stems from its appeal to families. Each restaurant has kiddie rides, "skill games," and robotic-animation shows. The company plans to add eight restaurants annually for the next few years.

There's another reason to expect zippy growth: Telzrow thinks ShowBiz will enter joint-venture pacts with foreign companies to get its restaurants into Europe by late 1990 or 1991.

In praise of versatility.

© 1990 by Schott Corporation

Some birds catch fish. Some bore for insects. Still others filter their food from water. They're not all of a feather and nature has endowed each species with a beak specially adapted to its need. But no matter what its shape or function, each beak is made of the same material.

_____ Glass is another material that can take on an extraordinary variety of specially adapted forms, functions and properties. Schott proves it every day.

_____ We've developed glass that transmits laser beams, glass that purifies sewage, glass that withstands a wide range of temperatures.

_____ In fact, with more than 50,000 products, Schott produces special glass that has even more applications than nature's solution. After all, there are only about 8,600 species of birds.

_____ Schott worldwide: 50 production facilities, represented in more than 100 countries, with over $1 billion in sales.

_____ Schott in North America: 11 companies employing more than 1,800 people.

_____ Would you like to know more about our special glass? Write to: Schott Corporation, Dept. B17, 3 Odell Plaza, Yonkers, NY 10701.

SCHOTT

Nobody knows more about glass.

HAPPY DAYS AREN'T HERE AGAIN

Bad loans and lower profits are still dogging banks

For most of the past decade, disappointment has been a way of life at many of the world's biggest banks. If bad oil loans weren't wiping out profits, bad agricultural loans were. As if that weren't enough, there were the hundreds of billions of dollars in loans to the Third World.

Just one look at BUSINESS WEEK's International Bank Scoreboard indicates that these problems—and more—continued to dog bankers as the 1980s gave way to the 1990s. In 1989, earnings of scores of U. S., European, and Japanese banks fell victim to a new round of massive losses on Latin American loans. Then the Tokyo stock market crashed just as the Japanese were ready to close their books on the latest fiscal year.

But the news wasn't all bad, especially in Europe. With the Continent's economies booming, many fast-growing European banks are beginning to muscle the Japanese out of the way as they build up for Europe's barrier-free trade commencing in 1992. The giant French farm bank Crédit Agricôle climbed to No. 7 this year, from ninth in 1989, while Banque Nationale de Paris rose to No. 8 from No. 13 a year before. The lone U. S. entry in the Top 10, Citicorp, moved up a notch, to No. 9. It's sure to move back down next year: The Apr. 1 merger of Mitsui Bank Ltd., with $204.6 billion in assets, and Taiyo Kobe Bank Ltd., with $174.1 billion, created an institution second only to giant Dai-Ichi Kangyo Bank Ltd. in size.

REAL PROFITS. The 1990 International Bank Scoreboard, prepared exclusively for BUSINESS WEEK by London's IBCA Ltd., provides a comprehensive guide to the fortunes and misfortunes of the world's top 100 banking companies. But the Scoreboard isn't just a celebration of size. It tells you a lot about the banks' capital, profits, and stock market value. And to help you scope out who's set to succeed in the 1990s, the Scoreboard gets behind the figures to examine the true quality of the banks' earnings.

Profit quality is becoming an increasingly important concern, both in bankers' boardrooms and in the offices of bank regulators around the globe. The major industrial countries have adopted a tough new international set of standards for bank capital that takes effect in 1992. To comply with the agreement, many banks have been trying to build up their capital bases. Those making the most money should be able to boost capital the quickest. But country-to-country differences in inflation, onetime tax benefits, and other factors may make some banks' returns on equity, a key measure of earnings power, appea greater than they really are. The Scor board adjusts ROE for these factors t disclose the banks' "real profitability. Expressed as an index, this figure show how each bank would stack up if all 10 operated under the same conditions. A index reading of less than 1 indicates bank's return on equity isn't keeping u with inflation.

Japanese banks, which have take heat from competitors worldwide for le ting profits and capital take a backsea to rapid growth, barely exceed the 199 standards. They will have to boost the profitability lest they fall behind in th competitive scramble. A slew of U. S and European regional banks easil meet the new international standard But that doesn't mean U. S. and Europe an banks face clear sailing. Ranked b 1989's real profitability, Wells Fargo Co., the San Francisco-based regiona bank, led the top 100. But in mid-June Moody's Investors Service downgrade the bank's credit ratings, citing risk real estate and leveraged-buyout loans

What Wells is now experiencing i likely to become commonplace acros much of the international banking indus try this year. Rising write-offs on prop erty and LBO loans promise to do t many U. S. banks what oil, agricultur and Latin America did to them in th 1980s. In Britain, falling real estat prices and rising corporate bankruptcie are looming. And Japan is still trying t overcome the double whammy of hig interest rates and a weak stock market "It's going to be a difficult year," say J. P. Morgan & Co. Chairman Denni Weatherstone. But then again, whe hasn't the going been tough lately?

By William Glasgall in New Yor

HOW THE TOP 100 BANKS STACK UP

THE JAPANESE ARE THE WORLD'S BIGGEST...

	Assets Billions of dollars
DAI-ICHI KANGYO BANK	$406.0
SUMITOMO BANK	370.5
FUJI BANK	364.9
MITSUBISHI BANK	362.2
SANWA BANK	355.9
INDUSTRIAL BANK OF JAPAN	248.7
CREDIT AGRICOLE/FRANCE	242.0
BANQUE NATIONALE DE PARIS/FRANCE	231.4
CITICORP/U.S.	230.6
TOKAI BANK	229.2

...AND THE MOST VALUABLE...

	Stock market capitalization Billions of dollars
INDUSTRIAL BANK OF JAPAN	$67.6
SUMITOMO BANK	55.8
FUJI BANK	53.2
DAI-ICHI KANGYO BANK	49.6
MITSUBISHI BANK	47.2
SANWA BANK	45.6
LONG-TERM CREDIT BANK OF JAPAN	32.4
MITSUI BANK	25.7
TOKAI BANK	23.5
NIPPON CREDIT BANK	19.2

...BUT NOT THE MOST PROFITABLE

	Real profitability index*
WELLS FARGO/U.S.	1.239
BANKAMERICA/U.S.	1.217
BANCO BILBAO VISCAYA/SPAIN	1.214
SKANDINAVISKA ENSKILDA BANKEN/SWEDEN	1.192
NCNB/U.S.	1.175
NATIONAL AUSTRALIA BANK/AUSTRALIA	1.167
SECURITY PACIFIC/U.S.	1.161
FIRST CHICAGO/U.S.	1.126
PARIBAS/FRANCE	1.125
ABBEY NATIONAL/BRITAIN	1.125

DATA: IBCA LTD

*Based on return on equity adjusted for onetime tax benefits, differing capital ratios, inflation, and tax rates

INTERNATIONAL BANK SCOREBOARD

			ASSETS		EQUITY	PERFORMANCE			MARKET VALUE		
			$ MIL.	CHANGE FROM 1988 %	$ MIL.	NET INCOME $ MIL.	CHANGE FROM 1988 %	REAL PROFIT-ABILITY	5/31/90 $ MIL.	MARKET TO BOOK RATIO	P/E RATIO
1	**DAI-ICHI KANGYO BANK** (d)	Japan	405,958.9	4.14	12,284.2	918.4	-39.00	1.039	49,571	4.04	53.98
2	**SUMITOMO BANK** (d)	Japan	370,515.8	-2.21	13,194.3	1,192.4	-24.60	1.060	55,813	4.23	46.81
3	**FUJI BANK** (d)	Japan	364,888.0	-0.51	11,609.5	1,000.6	-28.40	1.049	53,169	4.58	53.13
4	**MITSUBISHI BANK** (d)	Japan	362,256.3	2.37	10,418.4	903.8	-31.20	1.045	47,165	4.53	52.19
5	**SANWA BANK** (d)	Japan	355,948.1	1.42	11,024.1	1,027.8	-16.20	1.055	45,600	4.14	44.36
6	**INDUSTRIAL BANK OF JAPAN** (d)	Japan	248,730.4	-4.15	6,975.3	527.2	-25.50	1.033	67,612	9.69	128.24
7	**CREDIT AGRICOLE**	France	241,983.4	14.90	11,800.3	777.5	20.80	1.040	NT		
8	**BANQUE NATIONALE DE PARIS**	France	231,462.9	17.52	5,061.3	629.6	17.80	1.054	5,042	1.00	8.01
9	**CITICORP**	U. S.	230,643.0	8.97	10,076.0	498.0	-73.20	1.003	7,814	0.95	NM
10	**TOKAI BANK** (d)	Japan	229,191.1	1.05	6,477.2	316.5	-34.50	1.016	23,520	3.63	74.32
11	**NORINCHUKIN BANK** (d)	Japan	221,174.7	-9.27	1,158.2	222.2	-28.00	1.020	NT		
12	**CREDIT LYONNAIS**	France	210,726.5	17.80	4,694.2	595.5	67.20	1.058	4,241	0.90	7.12
13	**BARCLAYS**	Britain	204,887.1	8.39	10,713.5	765.8	-52.50	1.003	10,114	0.94	13.21
14	**MITSUI BANK** (d)	Japan	204,588.0	-1.43	5,450.6	455.7	-22.80	1.038	25,681	4.71	56.36
15	**BANK OF TOKYO** (d)	Japan	201,827.2	1.05	6,109.5	524.1	11.00	1.048	19,117	3.13	36.48
16	**DEUTSCHE BANK**	West Germany	198,253.9	18.62	8,606.2	789.2	16.80	1.072	19,032	2.21	24.12
17	**NATIONAL WESTMINSTER BANK**	Britain	186,541.1	4.69	9,759.8	390.1	-77.10	0.957	8,637	0.88	NM
18	**SOCIETE GENERALE**	France	175,787.0	13.06	4,472.7	686.4	16.20	1.079	6,691	1.50	9.75
19	**LONG-TERM CREDIT BANK OF JAPAN** (d)	Japan	175,351.3	0.99	6,073.4	405.1	-24.40	1.038	32,444	5.34	80.10
20	**MITSUBISHI TRUST & BANKING** (d)	Japan	174,960.8	1.19	4,709.5	432.3	-26.40	1.045	14,828	3.15	34.30
21	**TAIYO KOBE BANK** (d)	Japan	174,081.6	-0.51	4,211.4	322.2	-20.40	1.030	17,008	4.04	52.80
22	**SUMITOMO TRUST & BANKING** (d)	Japan	152,329.7	-5.49	4,493.0	393.7	-29.30	1.045	14,084	3.13	35.78
23	**DRESDNER BANK**	West Germany	143,865.5	13.00	5,478.1	383.0	31.30	1.041	8,570	1.56	22.38
24	**MITSUI TRUST & BANKING** (d)	Japan	142,096.8	-1.06	3,782.9	341.8	-25.40	1.045	11,979	3.17	35.05
25	**PARIBAS**	France	138,667.6	14.02	7,790.4	958.5	30.90	1.125	7,928	1.02	8.27
26	**HONGKONG & SHANGHAI BANKING**	Hong Kong	132,979.8	17.52	7,678.0	702.2	10.60	1.029	4,851	0.63	6.91
27	**YASUDA TRUST & BANKING** (d)	Japan	122,201.9	3.69	2,960.1	308.2	-22.20	1.049	12,673	4.28	41.11
28	**DAIWA BANK** (d)	Japan	121,598.1	-1.36	3,276.6	208.9	-29.40	1.026	14,230	4.34	68.13
29	**UNION BANK OF SWITZERLAND**	Switzerland	112,502.5	2.84	8,170.5	584.9	13.00	1.061	11,724	1.43	20.05
30	**NIPPON CREDIT BANK** (d)	Japan	112,362.7	-6.11	2,857.6	221.5	-22.90	1.032	19,193	6.72	86.64
31	**COMMERZBANK**	West Germany	111,277.4	11.69	3,497.2	332.0	20.80	1.054	4,111	1.18	12.38
32	**CHASE MANHATTAN**	U. S.	107,369.0	10.17	4,944.0	-665.0	NM	0.792	3,370	0.82	NM
33	**DG BANK**	West Germany	106,197.5	46.84	2,370.9	201.1	81.00	1.042	NT		
34	**ISTITUTO BANCARIO SAN PAOLO DI TORINO**	Italy	104,738.0	32.60	3,943.5	443.8	-6.60	1.053	NT		
35	**SWISS BANK CORP.**	Switzerland	104,487.2	2.96	6,167.9	485.9	8.20	1.053	7,367	1.19	15.16
36	**BANK OF CHINA**	China	103,255.1	5.55	7,682.3	1,071.6	-5.60	0.951	NT		
37	**WESTDEUTSCHE LANDESBANK**	West Germany	102,374.9	12.84	2,764.6	203.1	124.70	1.033	NT		
38	**BAYERISCHE VEREINSBANK**	West Germany	101,272.9	12.34	2,502.7	175.2	14.70	1.028	3,145	1.26	17.95
39	**MIDLAND BANK**	Britain	100,309.9	-0.35	4,577.3	-327.5	NM	0.832	3,539	0.77	NM
40	**BANCA NAZIONALE DEL LAVORO**	Italy	100,049.6	14.59	3,423.8	-146.4	NM	0.912	NT		
41	**SAITAMA BANK** (d)	Japan	99,294.9	2.52	2,833.5	163.3	-25.60	1.023	9,558	3.37	58.53
42	**BANKAMERICA**	U. S.	98,764.0	4.35	5,534.0	1,103.0	51.90	1.217	6,665	1.36	6.04
43	**KYOWA BANK** (d)	Japan	97,566.5	-7.08	2,965.8	199.4	-27.00	1.031	10,889	3.67	54.62
44	**AMSTERDAM-ROTTERDAM BANK**	Netherlands	93,824.1	11.60	3,488.9	447.4	51.60	1.112	2,404	0.69	5.37
45	**LLOYDS BANK**	Britain	92,383.5	-1.33	4,065.1	-801.1	NM	0.701	5,380	1.32	NM
46	**ALGEMENE BANK NEDERLAND**	Netherlands	90,410.9	6.15	3,581.3	383.7	22.40	1.095	2,306	0.64	6.01
47	**RABOBANK**	Netherlands	90,017.7	11.40	5,336.5	468.8	20.50	1.102	NT		
48	**J. P. MORGAN**	U. S.	88,964.0	-4.02	4,495.0	-1,275.0	NM	0.604	7,231	1.81	NM
49	**HYPO-BANK**	West Germany	88,823.4	18.65	2,427.1	167.7	16.30	1.030	3,672	1.51	21.90
50	**BANCA COMMERCIALE ITALIANA**	Italy	88,594.3	41.32	3,623.8	282.6	84.30	1.019	4,313	1.19	15.26

Fiscal year ended Sept. 30, 1989. (b) Fiscal year ended Oct. 31, 1989. (c) Fiscal year ended Jan. 31, 1990. (d) Fiscal year ended Mar. 31, 1990. NM=not meaningful. NT=not traded.

McGraw-Hill's "Shepard's Citations," available on-line. Shepard's Citations have been an indispensable tool for legal researchers for over 115 years. Today, the procedure known as "Shepardizing" is considerably easier and faster, thanks to this unprecedented combination of legal scholarship and electronic technology.

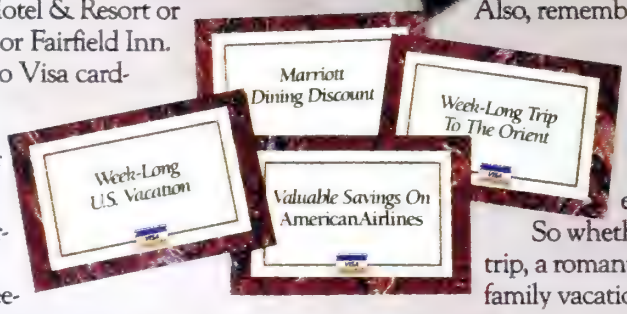
McGraw Hill

At McGraw-Hill, being first
is almost second nature.

CHECK INTO ANY MARRIOTT WITH VISA AND YOU'LL CHECK OUT WITH A GIFT. EVERY TIME.

If you have a Visa card, we have something special for you. Because we'll give you a free gift every time you use your Visa card to check into any Marriott Hotel & Resort or Suites, Residence Inn, Courtyard or Fairfield Inn. This offer is available exclusively to Visa cardholders from May 1st through August 31st, 1990.

You could receive five years of week-long holidays at Marriott Resorts, a trip to the Orient featuring a stay at the Hong Kong Marriott, or one of our many three-day weekend getaway packages to some of the hottest spots in the U.S., from San Francisco to the Florida Keys. Plus special values from American Airlines, dining discounts, and more!



Also, remember to guarantee your Marriott reservation with Visa's Guaranteed Reservation Service. That way, you can be sure that your room *and* your gift are going to be there, whenever you get there.

So whether you're planning a business trip, a romantic weekend for two, or the family vacation, remember Marriott. And remember your Visa card. Because when you check into Marriott with Visa, everyone checks out a winner.

Marriott HOTELS·RESORTS
1-800-228-9290

COURTYARD by Marriott
1-800-321-2211

FAIRFIELD INN by Marriott
1-800-228-2800

Marriott Residence Inn
1-800-331-3131

NO PURCHASE NECESSARY. Void where prohibited. Open to U.S. residents 18 years or older: additional age restrictions may apply to some prizes. Game expires 8/31/90 or sooner, if gamecard supply is exhausted. For complete official rules and a gamecard, send a self-addressed, stamped envelope to Official Rules P.O. Box 1242, Elmhurst, IL 60126-8242 by 8/31/90. (WA residents may omit return postage.) Sweepstakes subject to complete official rules, which are available at participating hotels and resorts. PRIZES: GRAND (1) Five years of week-long vacations at Marriott Resorts. Approx. retail value $12,900 (odds: 1:1,172,610). FIRST (5) A trip to the Orient. Approx retail value $10,350 (odds: 1:234,522). SECOND (50) Week-long vacation at any Marriott Hotel or Resort in the Continental U.S. Approx. retail value $1,930 (odds: 1:23,452). THIRD (200) 3-day weekend Getaway Package at any Marriott Resort in Continental U.S. Approx. retail value $1,125 (odds: 1:5,863). FOURTH (140,695) 2 American Airlines $25 discount coupons. Approx. retail value $50. (odds 1:8). FIFTH (123,000) Dining discount at participating Marriott Hotel or Resort restaurant. Approx. retail value $21. (odds: 1:10). SIXTH (126,869) Gift Shop 30% discount coupon. Approx. retail value $9. (odds: 1:9). ©Visa U.S.A. Inc. 1990.

INTERNATIONAL BANK SCOREBOARD

		ASSETS		EQUITY	PERFORMANCE			MARKET VALUE		
		$ MIL.	CHANGE FROM 1988 %	$ MIL.	NET INCOME $ MIL.	CHANGE FROM 1988 %	REAL PROFIT-ABILITY	5/31/90 $ MIL.	MARKET TO BOOK RATIO	P/E RATIO
ROYAL BANK OF CANADA (b)	Canada	88,445.6	7.35	5,002.4	461.6	-21.90	1.062	5,741	1.15	12.44
CREDIT SUISSE	Switzerland	88,401.4	2.86	5,171.8	508.9	20.20	1.080	7,160	1.38	14.07
TOYO TRUST & BANKING (d)	Japan	88,164.6	-4.09	2,576.6	224.7	-27.60	1.046	8,586	3.33	38.21
ZENSHINREN BANK (d)	Japan	86,625.6	0.81	1,564.3	224.7	7.10	1.075	NT		
NMB POSTBANK	Netherlands	84,194.2	14.65	2,753.9	344.6	17.40	1.100	2,626	0.95	7.62
SECURITY PACIFIC	U. S.	83,943.0	8.43	4,637.0	740.6	15.90	1.161	4,732	1.15	6.39
SHOKO CHUKIN BANK (d)	Japan	82,480.4	-10.11	2,039.9	87.3	22.80	1.008	NT		
BANK OF YOKOHAMA (d)	Japan	81,640.5	-0.91	2,795.6	129.1	-15.90	1.017	9,201	3.29	71.26
BAYERISCHE LANDESBANK	West Germany	80,910.3	13.56	1,800.2	70.6	-39.30	1.009	NT		
HALIFAX BUILDING SOCIETY (c)	Britain	80,640.8	13.31	3,064.7	565.1	10.10	1.105	NT		
CARIPLO	Italy	80,209.8	26.19	4,546.1	541.1	5.70	1.091	NT		
CANADIAN IMPERIAL BANK OF COMMERCE (b)	Canada	78,398.1	9.68	4,174.1	385.7	-20.40	1.057	4,117	0.99	10.67
WESTPAC BANKING (a)	Australia	76,143.2	26.77	4,933.8	613.6	11.20	1.094	4,179	0.85	6.81
MONTE DEI PASCHI DI SIENA	Italy	75,983.9	24.00	3,872.6	223.4	-1.20	0.998	NT		
CREDIT INDUSTRIEL ET COMMERCIAL	France	74,725.1	18.57	2,250.9	230.1	30.70	1.057	NT		
CREDITO ITALIANO	Italy	72,382.4	29.85	2,661.9	178.1	101.60	1.005	3,435	1.29	19.28
CHEMICAL BANKING	U. S.	71,513.0	6.18	3,705.0	-482.2	NM	0.774	2,453	0.88	NM
HOKKAIDO TAKUSHOKU BANK (d)	Japan	70,504.4	-7.22	1,999.4	106.3	-24.80	1.019	7,388	3.69	69.48
BANCO BILBAO VIZCAYA	Spain	69,681.0	12.00	4,692.9	916.9	16.60	1.214	7,034	1.50	7.67
NORDDEUTSCHE LANDESBANK	West Germany	68,678.9	15.78	1,506.7	51.2	35.60	1.008	NT		
GENERALE BANK	Belgium	68,118.8	9.14	2,206.1	97.4	-54.00	1.012	2,112	0.96	21.68
BANCO DO BRASIL	Brazil	67,009.7	6.25	5,502.7	97.5	-87.10	NM	583	0.11	5.98
BANCO DI NAPOLI	Italy	66,973.7	18.88	1,187.0	1.1	-97.50	0.970	NT		
BANK OF MONTREAL (b)	Canada	64,780.2	4.92	3,224.1	47.2	-89.70	0.957	2,572	0.80	54.48
GROUPE DES BANQUES POPULAIRES	France	64,771.1	15.80	2,104.0	195.1	-13.50	1.050	NT		
KREDITANSTALT FUR WIEDERAUFBAU	West Germany	64,092.8	18.93	1,894.9	80.2	6.50	1.012	NT		
BANK OF NOVA SCOTIA (b)	Canada	62,251.1	10.03	2,944.0	195.8	-53.40	1.021	2,258	0.77	11.53
NCNB	U. S.	61,491.2	106.01	2,961.5	447.1	77.10	1.175	4,363	1.61	9.76
MANUFACTURERS HANOVER	U. S.	60,479.0	-9.34	3,381.0	-518.0	NM	0.749	2,661	0.92	NM
ABBEY NATIONAL	Britain	59,726.1	4.84	3,939.9	518.6	6.30	1.125	4,307	1.09	8.30
SKANDINAVISKA ENSKILDA BANKEN	Sweden	59,257.6	25.26	4,108.6	670.3	3.90	1.192	3,403	0.83	5.08
FIRST INTERSTATE BANCORP	U. S.	59,051.4	1.47	2,339.2	-124.5	NM	0.904	2,414	1.35	NM
CHIBA BANK (d)	Japan	58,359.5	-0.37	2,153.2	105.7	-11.60	1.022	5,731	2.66	54.23
BANCO DI ROMA	Italy	56,389.1	11.90	2,088.4	-33.9	NM	0.937	2,506	1.20	NM
BANKERS TRUST NEW YORK	U. S.	55,658.5	-3.94	2,385.7	-979.9	NM	0.532	3,630	1.70	NM
BANQUE INDOSUEZ	France	55,315.7	14.87	1,866.4	233.2	25.60	1.079	NT		
HOKURIKU BANK (d)	Japan	55,162.7	1.38	1,769.0	105.1	-14.30	1.028	5,710	3.23	54.35
JOYO BANK (d)	Japan	54,302.5	6.15	1,735.4	115.8	-11.00	1.034	9,026	5.20	77.93
AUSTRALIA & NEW ZEALAND BANKING (a)	Australia	53,989.9	20.23	3,112.7	402.9	1.60	1.082	3,581	1.15	8.89
DEN DANSKE BANK	Denmark	53,917.7	8.29	3,438.9	116.3	-72.00	0.977	2,538	0.74	21.83
NATIONAL AUSTRALIA BANK LIMITED (a)	Australia	51,234.8	25.57	4,407.1	607.0	46.20	1.167	4,670	1.06	7.69
BANQUE BRUXELLES LAMBERT (a)	Belgium	50,865.5	11.62	1,205.9	157.3	13.30	1.065	1,479	1.23	9.40
NORDBANKEN	Sweden	50,659.5	26.54	2,930.9	370.2	-1.80	1.106	2,472	0.84	6.68
CHUO TRUST & BANKING (d)	Japan	50,122.8	1.06	1,195.6	82.3	-21.70	1.028	3,661	3.06	44.50
BANK OF SHIZUOKA (d)	Japan	49,488.0	5.36	2,194.3	127.8	-16.30	1.038	6,603	3.01	51.64
BANK OF NEW YORK	U. S.	48,856.5	3.10	2,764.3	50.7	-76.20	0.963	2,520	1.06	NM
WELLS FARGO	U. S.	48,736.6	4.55	2,860.9	601.1	17.30	1.239	4,115	1.68	6.85
BANK OF SEOUL	Korea	48,734.8	25.01	1,558.0	88.6	90.60	1.013	NT		
KREDIETBANK (d)	Belgium	48,079.3	23.08	1,572.5	233.8	2.60	1.098	1,704	1.08	7.29
FIRST CHICAGO	U. S.	47,907.0	7.82	2,692.0	358.7	-30.10	1.126	2,204	0.97	6.14

DATA: IBCA LTD.

FOR AD RATES AND INFORMATION PHONE: (312) 337-3090 OR WRITE:

BUSINESS WEEK MARKET PLACE

BUSINESS WEEK MARKET-PLACE
100 EAST OHIO STREET
SUITE 632
CHICAGO, IL 60611

Computers Office Equipment

$179 per mo

RENTALS

Next Day Delivery Anywhere in the U.S.A.

Also Available:

- IBM PS 2
- Compaq
- Macintosh
- Laser Printers
- Laptops
- Portables

And a host of other peripherals

PC Computer Rental

Call Toll-Free
800-765-4727

MARYMAC INDUSTRIES INC

Our 14th Year of DISCOUNTS
Tandy® Computers
Radio Shack® Products
Toll Free 800 231 3680
2251 Hein Park, Houston, TX 77450
(713) 692-0747 Fax (713) 574-4567

LASER FACTORY

Toner Cartridge Reconditioning
Nationwide Free Pick-up & Delivery
Low Prices On NEW Cartridges Too
We Purchase Used Toner Cartridges
$10 Off 1st Order (With Ad)
1157 Chess Dr., Foster City CA 94404
800 359-5777 or 415 571-9442

Computers/Office Equipment

FREE PRINTER
WITH EVERY TALL 386 SYSTEM

Buy the MODEL AMERICAN "TALL" 386/25 and you get a 24-Pin LQ printer for free.

This incredible value includes:

- 14" VGA Mono Monitor
- 40 MB Hard Drive
- 80386-25 MHz CPU
- 101-Key Keyboard
- 1 MB Expandable RAM
- High-Capacity Floppy
- Free 1 Yr. On-Site Service
- Free Printer $500 Value
- Free Initial Software Consultation

FCC Class B Approved
All for only $2995. COMPLETE. Call for more information, to order or for a dealer near you.

MODEL AMERICAN COMPUTER CORPORATION™
1-800-843-3838
MasterCard & VISA accepted

CUT RIBBON COST

Re-ink your fabric ribbons with a Borg Ribbon Inker!

800-553-2404

Borg Industries, Janesville, IA 50647

Business Services

FOR INDIVIDUALS AND COMPANIES SEEKING GREATER ACCESS TO JAPANESE MARKETS!

Learn how an understanding of Cultural Dynamics can help eliminate trade barriers. Make your products or services more appealing to Japanese markets.

Multilingual Consultant with background in study and research at the National Museum of Ethnology in Osaka. Member Nihon Tenji Gakkai (organization for the study of Japanese design).

Address inquiries to:
Sam Collier
165A Mt. Vernon St.
Boston, MA 02108
(617) 742-3872

Business Opportunities

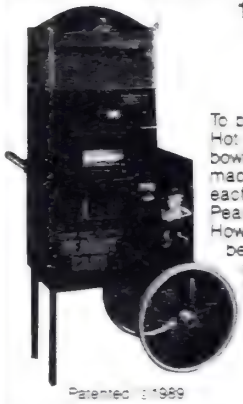
SELL YOUR PROPERTY IN JAPAN

Brokers/Owners—ask for Japanese Multi-type service. Reach 1000's of Brokers/Investors/Corporations in Japan. Free translation/typesetting. Also display ads, brokerage, agency services, Japanese market consulting. Call for details **1-800-USA-2111**

Hori & Bunker
290 Centre St.
Newton, MA 02158

INCORPORATE IN DELAWARE
$225 for Complete Incorporation
WHITTINGTON & AULGUR, Law Offices. For free information Write P.O. Box 5550, Wilm., DE 19808 or Call 1-800-441-9459

Business Opportunities



1 MILLION CANS OF PEANUTS SOLD DAILY

NEW! HOT ROASTED PEANUT VENDING MACHINES

GROUND FLOOR OPPORTUNITY

To be the first in your area to own and operate a Hot Roasted Peanut Route. Placed in all bars, bowling alleys, pizza parlors. If you owned 8 machines and they sold only 2 bags per hour each, this would generate $3,000.00 monthly. Peanuts are America's favorite snacking choice. However, hot roasted peanuts have almost become extinct in the 90's. The two combined makes the tastiest snack around. When was the last time you had peanuts that were hot roasted?

Patented © 1989

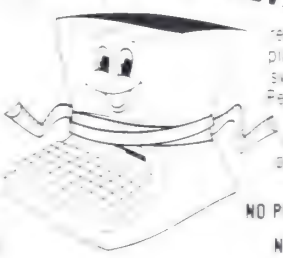
LIMITED DISTRIBUTORSHIPS
Only $6800
Call World Marketing
24 hrs. for free brochure
(800) 447-3157

FIRST TIME EVER
Dealerships Offered to the Public
Not where available

LIMITED OFFER

GROUND FLOOR

Comp-U-Diet



WANTED:
Dealers throughout the U.S. to help us service over 150 million overweight Americans who need an affordable plan.

If accepted, your cost is only $449.00 for your first territory.

$1200 a week & up

Comp-U-Diet is a revolutionary new diet plan of the 90's that is sweeping the country. People select the foods they like and our computers create a personalized plan for your clients.

NO PILLS—NO POWDERS

NOT MULTI-LEVEL

There Is:

- no selling or customer contact
- no product to warehouse
- no billing or collecting
- NO EXPERIENCE necessary (we provide complete training and support, and do all of your computer processing!)

Don't Wait Further! We Can Fast-Track!

CALL NOW FOR **FREE** MAIL-OUT BOOKLET:
1-800-942-9900 ext. 243
Mon-Fri 9 am-5 pm Eastern Time

Achieve Financial Independence

UNITED AMERICAN MARKETING, INC.
27280 Haggerty Rd., C-14
Farmington Hills, MI 48331

IT PAYS TO ADVERTISE IN THE BUSINESS WEEK MARKET-PLACE

The Business Week Market-Place Section is a special advertising feature appearing in the first issue of each month. The Market-Place provides an ideal Showcase for advertisers who have products or services that appeal to Business Week's more than 6.2 million responsive readers.

For rates and information mail the coupon below, or call (312) 337-3090 or FAX (312) 337-5633.

MAIL COUPON TODAY

BUSINESS WEEK MARKET-PLACE
100 East Ohio St., Suite 632
Chicago, IL 60611

Name _____
Company _____
Address _____
City _____ State _____ Zip _____
Phone _____

FOR AD RATES AND INFORMATION PHONE: (312) 337-3090 OR WRITE:

BUSINESS WEEK MARKET PLACE

BUSINESS WEEK MARKET-PLACE
100 EAST OHIO STREET
SUITE 632
CHICAGO, IL 60611

Financial Services

BUY STOCKS WITHOUT A BROKER

Special Report... Do-it-yourself investing at its best! Better than low commission...no commission investing!

Get this Special Report from
DOW THEORY FORECASTS

plus **Special Report: 94 Electric Utilities**...clear ratings assigned, five special buys evaluated

plus Charles Schwab's great book, **"How To Be Your Own Stockbroker"** (reg. $5.95 value)

plus **Full Consultation Privileges**

all with your 6 month (26 weekly issues) **introductory subscription** for only $57. New subscribers only. VISA or MC. Order today by phone or fax directly from:

Dow Theory Forecasts, Inc., Dept. BMP0790
7412 Calumet Ave., Hammond, IN 46324 (219) 931-6480
FAX (219) 931-6487

Health/Fitness

THE ULTIMATE CHAIR for a stress-free workday!

Our leather office chair reclines!

BackSaver FREE 14pg. catalog 1-800-251-2225 or write
53 Jeffrey Ave., Dept. BW-26, Holliston, MA 01746
In MA 508-429-5940

FOR •THE• HOTTEST STOCK, OPTION, &FUTURES RECOMMENDATIONS

CALL THE LEIBOVIT LINE!
1-900-820-0877*
3 Times Daily - 11 AM, 1 PM, 3 PM
*Only $2.50 minute!

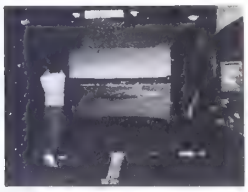
BONUS! Call before August 31 to receive a FREE Newsletter & Annual Forecast.

Mark Leibovit, as seen on PBS & FNN

Business Opportunities

INDOOR GOLF

Golf is one of our fastest growing industries, and with **Par T Golf**, the Incredible Indoor Golf system, you can offer your guest a *complete* game of golf on world class courses, like Pebble Beach!



Par T Golf is an excellent addition to any Hotel, Resort, Sports Bar, Golf Store, Driving Range or start your own Free Standing Facility! For more info on Par T Golf, please call.

In Sports Marketing
Tel: (619) 698-2201
Fax: (619) 698-7648

Business Service

INCORPORATING? FREE KIT

It's easy in Delaware or any state with our fast, reliable, inexpensive service. For free information call toll free (800)441-4303, or write:

CA.i CORPORATE AGENTS, INC.
Department BW, Box 1281
Wilmington, DE 19899

CONSULTEL
PROFESSIONAL TELE-MARKETING SERVICES

We know the secret to your success!
Professional, cost effective telemarketing
- SCREENED APPOINTMENTS
- QUALIFIED PROSPECTS
- CUSTOMER SERVICE
- MARKET RESEARCH
- DIRECT SALES

We offer you...
- PROFESSIONAL OUTBOUND TELEMARKETING
- CLERICAL SUPPORT FOR YOUR PROGRAM
- DATABASE MANAGEMENT & SOFTWARE
- A ONE TO FIVE SUPERVISION RATIO
- EXCELLENT REFERENCES
- PERSONALIZED SERVICE

Call or write today for a free brochure!

2320 N. WOODLAWN AVE METAIRIE LA 70001
1-800-256-2418 FAX: 1-(504)-887-9398

Wine Cellars

Visa/MC/AmEx/Discover

WINECELLARS-USA

18 Models – We won't be undersold!
Immediate shipment on most models.

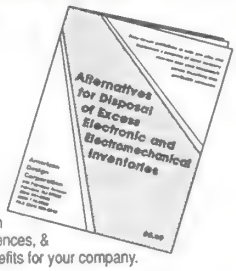
Handmade Wood Cellars		Your Cost
296 Bottle Credenza	Ret: $ 2795	$ 1795
440 Bottle Capacity	2495	1695
700 Bottle Capacity	3495	1995
Designer Models - Not Handmade		
40 Bottle Glass Door	$ 599	$ 499
60 Bottle Glass Door	749	659
FurVault holds about 8 Furs $3495		$ 1895

Only $2.85 per bottle *Model 700*

Custom Cellars & Racking Systems – Call For Catalog
134 W 131st St. Los Angeles • 800/777/VINO (777-8466) or in CA 213/719-9500

Inventories Purchased

Are excess inventories tying up *your* cash?



Send for a FREE copy of this guidebook detailing your company's cash recovery options from excess or obsolete electronic & electro-mechanical inventories.

This 32-page step-by-step guidebook outlines a wide range of disposal options, including private sale, auction, consignment & more. It explains the advantages & disadvantages of each option in terms of cash return, timing, overhead expenses & tax consequences, & helps you decide which method is best suited to maximize the benefits for your company.

To order, mail to:

AMERICAN DESIGN CORP.
P.O. Box 220, Dept. BW, 815 Fairview Ave., Fairview, NJ 07022
or *CALL TOLL FREE* 1 (800) 776–3800
Or, in New Jersey (201) 941–5000

Corporate Gifts

LEATHER BOOK BAG
ONLY $159
We pay shipping
17" x 13" x 7"
Visa/M C /Check
1-800-999-1920
Grant's Continental Clothing
9540 Harding Ave., Miami Beach FL 33154

"NEW" DRY DRAWER

Draw Quick Straight Horizontal and Vertical Lines on a Dry-Erase Board !!!

SEND Check or Money Order for $19.00 TO
MANN INNOVATIONS, P O BOX 4412
Littleton, CO 80126 30 Day Money Back Guar

Corporate Gifts

CORPORATE TIES
(150 pc. minimum)

Gain recognition from neckties customized with company logo.

Free literature upon request.

BARNARD-MAINE LTD.
33 Mead Ave. • Cos Cob
CT 06807 • U.S.A.
Dept. BW (203) 869-3006

Corporate Gifts

EMBRGIDERED CAPS FROM $3.95
IMPRINTED CAPS FROM $2.50

IMAGE BUILDERS

EMBROIDERED POLO SHIRTS FROM $14.95

PORCELAIN MUGS FROM $1.39 REG. $2.50

MIN QTY 144

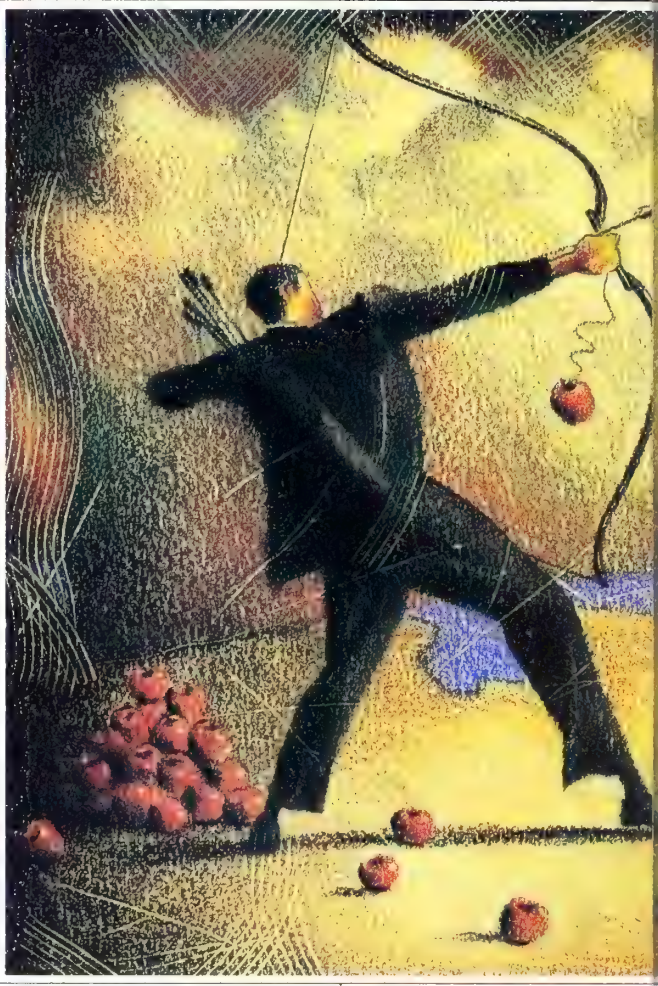
FREE PROMOTIONAL GIFT CATALOG
800-792-2277
IN CA 800-826-8585
FAX (415) 786-1111

The Corporate Choice®
3952 Point Eden Way • Hayward, CA 94545

EDITED BY AMY DUNKIN

Exporting

GOING GLOBAL? HERE'S HOW



For many owners of small businesses, the concept of exporting is as foreign as the countries they can export to. But diversifying abroad offers new markets in growing economies, extended product life, and a chance to spot trends for the domestic market. The opportunities abroad have never been better, and an entire industry exists to aid would-be exporters.

The granddaddy of the export industry is the Commerce Dept. One of its divisions, the U. S. & Foreign Commercial Service, has foreign offices in 129 cities in 67 countries, as well as 68 locations in the U. S. Its local trade specialists offer individual export counseling, market-research assistance, sales leads, and conferences. The Agriculture Dept.'s Foreign Agricultural Service division and many states also have export assistance programs.

WORLD TRADERS. Becoming a member of a local World Trade Center is another way to gain a foreign beachhead. There are 27 active WTCs in the U. S., 37 under construction, and an additional 133 in cities worldwide. They run export seminars and trade missions and offer facilities for business meetings. WTC Network is a computerized trading and communications data base linked to more than 100 WTCs and their subscribing companies worldwide. Costs to use the network are small, but users must be WTC members. Annual dues vary by city; the average is $250. The World Trade Centers Assn. in New York can direct you to the nearest WTC.

Robert Hovee, president of Life Support Products, a maker of emergency medical devices in Irvine, Calif., used both Commerce and WTC services extensively to get his export operation in gear. To find medical-device distributors in different countries, he worked with his bank and the Orange County (Calif.) WTC. In Hong Kong, he used the local WTC to set up a Far East sales meeting. And in South Korea, he visited the local U. S. Commerce office to look through its listing of U. S. importers and their distributors. If a reputable U. S. company used the distributor, that gave him a clue to its reliability. Hovee also contacted U. S. companies with complementary product lines to find out who they used to sell overseas.

Networking is the name of the game in exporting. Brazier Forest Industries, a lumber production and trading company in Seattle, wins the prize for the most convoluted networking. "We found our deal in Iraq through an Italian agent who had a friend in Finland who met a Japanese guy on a bus in Baghdad during the Iran-Iraq war," says Mark Peters, general manager of the trading division.

Trade associations can b good launchpads for inquirie After landing an $8 millio contract, John Lyons couldn persuade lenders to give th startup company he worke for a loan for working capita So Lyons, chief financial of cer of Anadigics, a manufa turer of integrated circui in Warren, N. J., outline his problem for th Electronic Industri Assn. It referre him to Washingto based Delphos Inte national, which sp cializes in findi public funding f international bus ness. Lyons wou up with a loan gua antee of $1.5 millio from the Export-I port Bank of th U. S.

No one method exporting is th "right" one, and y may take differe approaches in diffe ent countries. If y don't have time to

WHERE TO LEARN MORE ABOUT EXPORTING

The World Is Your Market
FREE Commerce Dept. or Small Business Administration district offices

A Basic Guide to Exporting
$8.50 U.S. Government Printing Office, Washington D.C. 20402

Exportise
$49.50 Small Business Foundation of America, 20 Park Plaza, Boston, Mass. 02116

The Ernst & Young Guide to Expanding in The Global Market
$14.95 John Wiley & Sons, 605 Third Ave., New York, N.Y. 10158-0012

The Ernst & Young Resource Guide to Global Markets 1991
$14.95 John Wiley & Sons

The Official Export Guide
$349 North American Publishing Co., 401 N. Broad St., Philadelphia, Pa. 19108

DATA: BW

rnational marketing, an easing number of export-ice companies will do just ut everything for you. r services range from lo-ng markets and distribu- to shepherding products ugh a foreign govern-t's approval process.

OUR SERVICE. An estimat-,000 export-service compa- exist. Export-manage-t companies (EMCs) are -based companies, usual-specialized by product ıp or country, that will ket and sell your product seas. Check references financial standings. You ıt get a list of the prod- a company represents verify it with the manu-ırers. EMCs may take a mission of about 15% or under a buy/sell agree-t. Some add a retainer. a listing of EMCs, try the *ectory of Leading U. S. ort Management Compa-* ($45, Bergano Book Co., Sherman St., P. O. Box Fairfield, Conn. 06430).

ıch middlemen are convenient for companies new to exporting. But you will lose some control over how your product is marketed, priced, and serviced overseas.

John Benton, vice-president for marketing sales for Verimed, a manufacturer of medical biofeedback equipment in Fort Lauderdale, Fla., is considering using an EMC because of difficulty juggling distribution inquiries from around the world while tending to the domestic market. But he was unhappy to discover that the EMC he was considering would sell his product to a foreign trading company rather than directly to a distributor. That meant another layer of profit-taking—and a higher final price. Benton worries that such markups might limit market share.

U. S. export-trading companies (ETCs) differ from EMCs in that they take title to your goods and pay you directly. "ETCs tend to be less relationship-oriented than EMCs and are larger, more transaction-oriented companies," says Richard Barovick, executive director of the National Federation of Export Assns. in Bethesda, Md. A directory of its 260 members that are export-service companies is $15.

In some countries, such as South Korea and Japan, you may have little option but to work with large foreign-trading companies. But trying not to may be worth your while. Reducing the layers between you and your end-users can enhance profitability as well as long-term market penetration.

> There's lots of help for export-minded small businesses

To avoid a U. S. middleman, you'll need to find a foreign agent and distributor to represent your product. A bank with an international branch may be able to direct you to reputable companies abroad. For $125 per country, your local Commerce Dept. office can commission an agent/distributor search. Commercial officers in the countries you choose gather names of companies interested in representing you and give you about six prospects in three months. To check out a specific company, you can get a World Traders Data Report for $100.

A careful choice of agent/distributor is vital. "In many countries, once you appoint one, you're stuck with them," says William Spitler, deputy director of Commerce's New York office. "You're either not allowed to get rid of them or the terms are exorbitant—such as 10 years' worth of commissions."

CARGO AGENT. If you're not using an EMC or a trading company, and you don't want to handle the details of shipping yourself, then you need to find a reputable freight forwarder or customhouse broker to act as the travel agent for your cargo. You can purchase a directory of licensed companies for $15 from New York-based National Customs Brokers & Forwarders Association of America.

Another resource is the international trade department of a large accounting firm. It can introduce companies to banks, develop international business plans, and identify agents and distributors.

One of the best investments you can make is a trip overseas to meet potential partners. You can go on your own or take part in the Matchmaker trade missions sponsored by Commerce and the Small Business Administration. Barbara Esposito of Products Finishing in Brooklyn, N. Y., estimates her family-owned company spent more than $50,000 on the costs of two months' travel to 17 countries, mailings, and sample shipments. But two years later, it sells luggage carts to 30 countries. Not that Esposito is satisfied with that. "I want to sell our luggage carts to 190 countries," she says. Only 160 to go. *Suzanne Woolley*

Smart Money

BONDS TO HELP BEAT THE RISING COST OF COLLEGE

Last April, Wisconsin officials watched in surprise as a $65 million municipal-bond issue, scheduled to be offered for six days, sold out in three. It wasn't that the munis' yields were especially high. The appeal was that these were "education-savings bonds," designed to help parents finance college bills.

Since 1987, 18 states have issued such bonds, and five others have programs in the works. Unlike prepaid tuition plans, these baccalaureate bonds don't lock funds into a trust guaranteed to cover college costs in a particular state. Instead, they consist of zero-coupon, general-obligation bonds that could finance college anywhere.

As with any zeros, the bonds are issued at a deep discount from their face value and pay no interest before they mature. In a recent Connecticut offering, for instance, people paid $359 for a bond that they'll be able to redeem in 15 years for $1,000. Like most general-obligation munis, the interest is exempt from U.S. income tax and from that of the issuing state. With four years at state universities expected to approach a national average of $65,000 by 2005, parents can foot a child's bill by buying about $23,000 worth of such bonds now.

TAX-EXEMPT COLLEGE MUNIS: A COMPARISON

Issuer	Yield*
ILLINOIS	6.80%
WASHINGTON	6.75
CONNECTICUT	6.50
TAXABLE ZERO-COUPON TREASURY	8.30

*10-year maturities DATA: BW

The college bonds do have special features that distinguish them from regular munis. While munis usually require a $5,000 minimum purchase, investors can buy a single baccalaureate bond for $1,000. They are available in a variety of maturities. Washington, for example, offers 7- to 22-year bonds so that parents can time the payoff to a child's college years. Some states add special incentives as well: In Illinois, the bonds won't count against those applying for student financial aid.

'BEST CHOICE'? Appealing as these vehicles are, investors shouldn't be blinded by the education-savings hook. The state backing can "give people the impression that this is the best choice," says Christine Paulson of the Education Commission of the States, a nonprofit public group. But, she adds, it's "just one of a number of investment vehicles."

One problem is liquidity. The bonds are sold for a limited period and generally don't trade afterward. Even if a bank or local broker will buy them back, you may well lose on the deal—zero-coupon bonds are notorious for volatile price swings.

To compensate for the volatility, zeros often have higher yields than their interest-paying counterparts. Not so these issues. In most states, the annual yields have ranged from 6% to 7.5%, depending on maturity, and often lag behind the rate on regular munis. If the gap between the two is more than three-tenths of a percentage point, "that's not a good time to buy" these bonds, says John Schniedwind, senior vice-president of Benham Capital Management in San Francisco. And inflation, of course, can erode the return on any fixed-interest security. *Troy Segal*

REAL *RARA AVIS*: A HAND-RAISED HYACINTH MACAW COSTS $10,000

Pets

THE NEW EXOTIC BIRDS: HOMEGROWN AND TAME

With their colorful plumage and wisecracking chatter, exotic birds are real attention-grabbers. But can they also be as lovable as dogs?

The answer is yes—especially if the bird is domestically bred. Hand-fed from birth, such birds are friendlier, healthier, and easier to train than their imported cousins, which are captured in the wild. "Hand-fed babies don't even know they're birds," says Bill Dougherty, manager of Houston retailer Adventures in Birds (713 681-5299).

Until recently, more than 75% of the large exotic birds sold in the U.S. came from foreign countries. But exporters such as Australia and Brazil have restricted shipments to protect dwindling bird populations. So American breeders are filling the gap. Now, nearly half the birds in pet stores are U.S.-bred.

CHITCHAT. Large exotics such as macaws, African greys, cockatoos, and Amazon parrots are renowned for their charm, imitative talents, and affectionate ways. African greys are the best talkers, but many other breeds can chitchat. Blue-and-gold m caws stand out for their ab ty to imitate everything fro voices to barking dogs.

Such qualities don't co cheap. Hyacinth macaws turquoise with yellow e rings—are on the Interi Dept.'s endangered list a sell for $10,000. Macaws a cockatoos start at $1,5 Smaller, extravagantly col ful lories run $200 to $750.

But you get your money worth. Cockatoos, measuri up to 20 inches, can live years on a diet of seeds a fruit. Macaws, which measu 40 inches, live 50 years, as Amazon parrots and Afric greys. Experts say these pe need social interaction. So you can't play with your bi daily, you may be better with less intelligent finches canaries.

Simon & Schuster's *Gui to Pet Birds* ($12.95) is an e cellent primer, while *Ame can Caged Bird* magazi (516 979-7962) lists many clu and exhibitions. Most peop start with just one bird. B these creatures are so ende ing, don't be surprised if y soon wind up owning two three. *Andrea Rothma*

Wheels

IESE 'BLADES' T YOU CUT LOOSE

BUILT FOR SPEED: AN AEROBIC WORKOUT THAT SPARES YOUR KNEES

f your knees hurt from ogging, and you're look- ng for a new way to get heart and lungs pumping, pulling on a pair of ades." They're roller tes that resemble ice es because their wheels in a straight line. More neuverable than roller es, blades provide a stren- s aerobic workout without nding your joints.

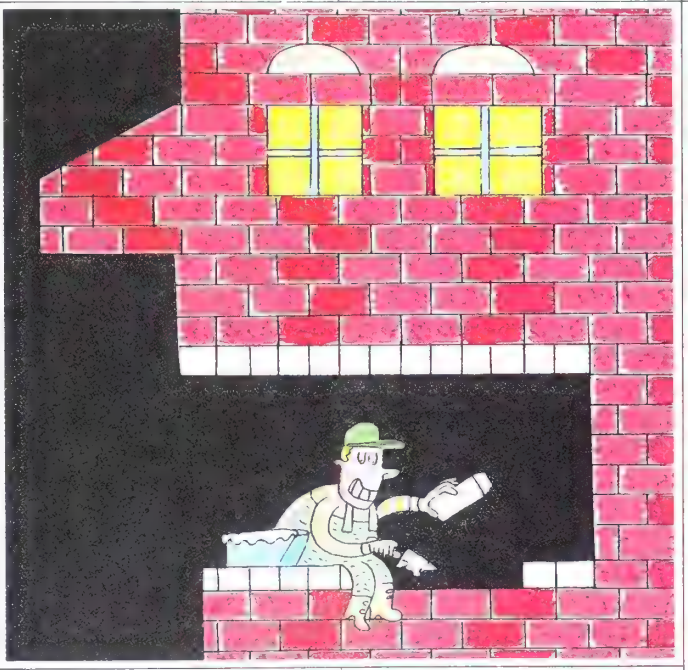
ong popular for racing in Netherlands, blades were oted for summer training by Scott Olson, a Minneapolis hockey player, in 1982. The company he founded, Rollerblade, commands about 75% of what is approaching a $50 million market. And plenty of pinstripers are rolling with the trend. Larry Perlman, 52, Control Data's fit-and-trim CEO, is a blading enthusiast.

SWITCHBLADES. Stick with flat surfaces at first. Alpine skiers will take to inclines more quickly, since the techniques for rolling down a steep street and making a downhill run are basically the same. Learning to stop takes practice—and lots of falls. So it's a good idea to wear protective gloves, elbow and knee pads, and a helmet.

Prices range from $80 to more than $300. If you're buying blades for fitness, expect to pay at least $160 for a good-quality model. Snowbelt bladers might consider $220 Switch-its, which convert to ice skates. *Russ Mitchell*

Health

ALSE TEETH HAT ALMOST AKE ROOT



or more than 40 million Americans, the problems of wearing dentures are too familiar. "They can , wobble, or slip out, or can condemn people to unhealthy lifetime diet of food," says Dennis Tar-, professor of periodontics New York University's tal college. But now, the tal profession offers a so- on: implants.

eveloped in Sweden some years ago, implants are gaining acceptance in the . In the procedure, a den- or periodontist replaces sing teeth with artificial s mounted on tiny metal ts that project from the ns. Each post is fixed to a ader titanium cylinder set the jawbone.

M GRIP. Over time, the e actually fuses to the ti- ium, permanently locking implants in place. They al- a wearer to eat just about food, even tough steak. linary bridges or "plates" d in place by small wire trusions or adhesive cream can withstand only about 25% of the chewing pressure possible with natural teeth.

If you're a candidate for implants, you will need to see the dentist several times over a period of months. First, the dentist makes careful studies of your oral tissues, supporting bone, and mouth shape and size. To set each implant, the dentist gives local or general anesthesia, makes an incision in the gum, and bores a tiny hole in the jawbone with a very slow drill to prevent heat that would destroy the bone cells. Then, a titanium cylinder is placed in the hole and the incision is sutured. After several months, during which the bone fuses with the metal, the gum is reopened so that teeth-holding posts can be set into the cylinders. Then, after a few weeks to permit healing, the dentist mounts ceramic or gold-and-ceramic teeth on the posts. Five posts can support an entire lower plate.

Dr. Myron Nevins, a Swampscott (Mass.) practitioner who formerly headed the American Academy of Periodontology, puts the typical cost per implanted post at $1,000 to $2,000. A single ceramic tooth can run $1,000 more. An entire lifetime set of new teeth, with supporting implants, can cost up to $40,000. But some patients opt for just two implanted posts onto which they can firmly clip their removable dentures (about $2,000). "Costs vary because the procedure is more or less difficult in relation to the health and size of the patient's jawbone," says Nevins. But the success rate for implants speaks for itself: better than 95% in the lower jaw, 90% in the upper. *Don Dunn*

Worth Noting

QUICK CASH. Travelers abroad can save by exchanging money at automated tell er machines. At British ATMs, a request for 100 pounds debits your U. S. account $165—a $14 savings over what you'd pay at a hotel or bank, estimates Plus System, an international ATM network.

MORE PLAY. BASF offers a T-130 videocassette that goes 130 minutes instead of the usual 120 at normal speed. At slow speed, it runs 6½ hours instead of 6. It costs $6—the same as for a T-120.

PHOTOGRAPH BY GROPP/SIFA. ILLUSTRATION BY M. F. COHEN

Workaholism Runs In Our Family.

1-800-648-7130

It's a trait shared by every Konica Copier and Fax. They're tough. They're reliable. They don't know when to quit.

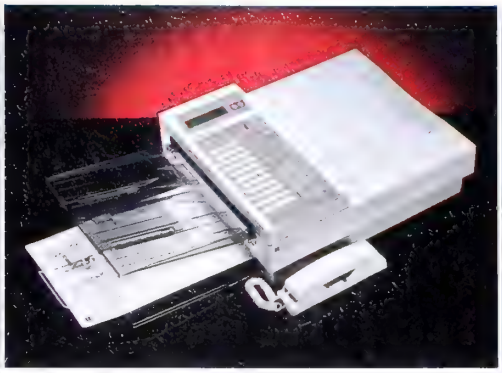
To become a member of the award-winning Konica family, call the number above.

Konica Copiers and Fax. They just work all the time.

© 1990 Konica Business Machines U.S.A., Inc.

Konica
COPIERS • FAX

Business Systems & Technology:



Realizing the Future Now

In the offices of EveryCo., the managers breathe a sigh of relief.

The telex has been replaced by a facsimile machine. Accounting finally has its own copier. Gleaming new typewriters with disk drives sit on every secretary's desk.

Those personal computers are actually being used for something besides paperweights. The mainframe boys managed to hook up a local area network...not that it really works, but there's a lot of wire, which impresses the boss.

Now all they need is a replacement for that noisy printer, and EveryCo. thinks it's ready for the 1990s.

Meanwhile, across town at ArchRival Inc., plain-paper fax machines are being phased in, while everyone in sales gets a personal fax.

Color copiers churn out dazzling sales presentations at a fraction of the cost of EveryCo.'s outside printer.

The typewriters look and act like PCs with hard-disk drives, 40-line monitor screens and MS-DOS compatibility

Their local-area network not only works, it also connects the personal computers to a centralized file server, a high-resolution scanner, and a variety of laser and color printers. The wires are built into the furniture. In some cases, laser beams replace the cables altogether.

Within the next two years, the managers at ArchRival Inc. will replace all its copiers with digital models that also work as facsimile machines, laser printers and scanners. Naturally, they will be part of

In cooperation with NOMDA, *the National Office Machine Dealers Association*

Minolta MI³MS optical image system

the local-area network.

In 1992, when the office is wired with fiber optics and ISDN (Integrated Services Digital Network), ArchRival Inc. will have the office equipment to maximize its internal and external communications in ways that make EveryCo. look as out-of-date as an adding machine.

Now, which company is going to succeed in the new decade?

Office equipment and systems made huge leaps in the 1980s. Fax machines, laser printers, low-cost copiers...all seem miraculous when you consider that ten years ago, computers were the size of a compact car and overnight delivery was science fiction.

But the office machine revolution has just begun. Today's copiers run circles around yesterday's models, at one-tenth the cost. Typewriters can out-perform most typesetters Fax machines can transmit pages in less than 10 seconds with plain-paper output. And laser printers sell for less than $1,000.

Finding the right solution to an office's needs requires a specialist, someone who not only sells copiers and fax machines and computers, but also trains and services the products he sells.

The National Office Machine Dealers Association (NOMDA) is dedicated to making those decisions easy for office managers. Its members do more than "sell boxes." They evaluate an office's requirements, design a cost-effective system, show everyone how to use the equipment efficiently and provide maintenance for years to come.

The 1990s are going to be the Age of Communications. Sending, receiving, duplicating and manipulating words and images will be critical to every success story of the new decade.

So if your office sounds more like EveryCo. than ArchRival Inc., take a long, hard look at the products and services here, then call a NOMDA dealer. He'll make the office of the future your office today.

HIGH-SPEED COPIERS

The days of waiting half an hour for a copy of a 100-page report are long gone. Copier manufacturers have made their machines faster and faster while decreasing the cost to prices that look like a typographical error.

For example, the **Ricoh** FT7770 makes 64 copies-per-minute, so that a 100-page report would be finished in around 90 seconds. **Minolta Business Equipment Division's** EP 8600 zips along at an equally speedy 60 copies-per-minute, while **Sharp's** new SD-2075 can crank out 150,000 copies-per-month at a 75 copies-per-minute clip. All sell for less than $20,000.

Mita Copystar America, the "all we make are great copiers" folks, have a zoomy new entry, the

Mita DC 7085

It looks like this.

But it sounds like this.

AT&T can do the same for your fax machine's performance.

AT&T Enhanced FAX Service. Even the most elementary fax machine can do some very grand things. Because now it can be hooked up to AT&T Enhanced FAX, which can empower your machine with all the capabilities available through AT&T's Worldwide Intelligent Network.

And all you need to do is call our toll-free number and follow the easy voice prompts, which orchestrate the entire process.

You can store and retrieve messages from your own fax mailbox. Automatically redial a busy number. And send the same document to up to 1,000 destinations, worldwide.

And since it frees up both you and your machine, you can conduct business as usual.

One last note. AT&T Enhanced FAX is part of an extensive portfolio of services called AT&T Global Messaging, which will always be evolving and never become outdated.

So call **1 800 248-EFAX** to hear more about AT&T Enhanced FAX and how we can handle all your fax needs.

It'll be music to your ears.

AT&T
The right choice.

©1990 AT&T

DC-7085, that produces up to 70 copies-per-minute, plus a five-way paper feed system that holds a whopping 3,500 sheets in all.

Talk about smart: the **Xerox** 5065, which zips along at 62 copies-per-minute, offers Remote Interactive Communications (RIC), a self-monitoring system that automatically transmits copier operating data via phone lines to a central computer programmed with artificial intelligence. If a bearing is about to break down, the 5065 tells Xerox so a service rep can be dispatched before a breakdown occurs.

Even more down-to-earth copiers are getting the turbo treatment. Specifically, the **Toshiba** 2230 Turbo can switch between 23 and 30 copies-per-minute at a touch of a button. In its turbo mode, the 2230 actually uses less toner, so it's perfect for a department that needs high-quality documents to send to clients, but wants the option of faster, less-costly copies for internal use.

DIGITAL COPIERS

The same technology that drives laser printers and plain-paper fax machines is being applied to copiers. While not as fast as the high-speed models, digital copiers can manipulate and edit images in ways an art director can only dream about.

The **Panasonic** FP-C1 not only makes true four-color copies, it also reduces and enlarges from 33% to 400% in one-percent increments, stretches and compresses images, highlights particular sections in any of seven colors, frames images with a color border and deletes and saves portions of a document.

Konica has jumped on the digital bandwagon with its 8028 three-color copier. Editing and addition of color can be done using an ordinary felt-tip marker—just circle the area you want deleted or colored on the original, and the 8028 turns that black-and-white headline into a screaming red banner.

Ricoh has taken the digital copier concept one step further by integrating a facsimile machine into its DS320F; it can even receive fax transmissions while making copies. The DS320F will eventually incorporate printing and scanning capabilities via a video interface, powered by a personal computer.

COLOR COPIERS

For centuries, business was conducted in black and white. Letters, presentations, sales materials and reports were about as colorful as a checkerboard.

The computer revolution changed all that. Suddenly, thousands of colors burst onto high-resolution monitors, and yesterday's boring quarterly report has become a virtual flower garden of shades, tones and paintbox graphics.

The problem was translating those colors on the screen into hard copy, and then making multiple copies of the result. While we're still waiting for the perfect color computer printer, the copying of color documents has become as easy as, well, using a copier.

Canon U.S.A. revolutionized the color-copier market with its Color Laser Copier (CLC). Not only does

it make exceptional full-color copies, the CLC 500 can access, manipulate and print documents using the 4,000-plus software packages that support **Adobe's** PostScript desktop publishing language.

One of the drawbacks to color copying is the relative lack of speed. Most machines produce five copies-per-minute at best. Not the **Kodak** ColorEdge AC copier-duplicator, which cranks out four-color reproductions at an amazing 23 copies-per-minute.

For the budget-minded firm, **Mead Imaging** has invented a process called Cycolor, a paper-based color copying system that lets offices join the color crowd for substantially less than $10,000.

Cycolor-based color copiers from **Brother**, **Savin**, **Sharp** and **Seiko Mead** don't use toners, don't need special plumbing, don't require a degree in copier physics to operate and don't take up much more space than a desk blotter. Just load the machine with the special Cycolor paper, press a button, and your sales pitch suddenly looks like it was produced by Walt Disney. Four-color overhead transparencies can be produced just as quickly and easily.

TOP: Konica 8028 three-color copier

RIGHT: Xerox 5065 copier

Introducing the laser printer to buy if price is the first thing you look at,

or the last.

	The New IBM LaserPrinter E	HP LaserJet IIP
Speed	✓ up to 5 ppm	up to 4 ppm
Speed upgrade option	✓ up to 10 ppm	No
Adobe PostScript option	Yes	Yes
Printer emulation	✓ IBM, HP PCL	HP PCL
Std. plotter emulation	✓ Yes	No
Font card slots	✓ 2	1
Std. input paper tray capacity	✓ 200	50
Std. output paper tray capacity	✓ 100	50
Opt. sec. input paper tray capacity	✓ 500	250
Opt. envelope tray capacity	✓ 75	20
List price*	✓ $1495	$1495

*Dealer prices will vary

Any way you look at it, the new IBM LaserPrinter E gives you more for your money than any other laser printer in its price range.

For the same price as the HP LaserJet IIP, the IBM LaserPrinter E gives you all the advantages of laser quality output 25% faster, with four times the paper capacity, and twice the number of font slots.

Plus the IBM LaserPrinter E is unique in its price range because it lets you customize your printer's speed and features to meet your exact needs. And that makes it the only affordable laser printer that lets you buy now and grow later.

For example, if you decide you want faster printing, you can double the LaserPrinter E's speed. Or if your software requires Adobe PostScript® language, it can give you that creative flexibility, too.

So whether your first requirement is price, performance or flexibility, the new IBM LaserPrinter E should be at the top of your shopping list. See it today by calling 1 800 IBM-2468, ext. 982, for the name of your nearest IBM Authorized Dealer.

The new IBM LaserPrinter E. Suddenly, nothing else measures up.

IBM

IBM is a registered trademark of International Business Machines Corporation. HP LaserJet IIP is a product of Hewlett Packard Corporation. Adobe PostScript is a registered trademark of Adobe Systems Inc. ©1990 IBM Corp.

RIGHT: Murata F-55 facsimile machine

BOTTOM: Mitsubishi FA-770X facsimile machine

In the middle of the market are a plethora of machines using a variety of copying technologies. The Savin Prism I and the **Gestetner** Color Copystation are based on the Colorocs systems that looks and operates like a regular copier (reduction/enlargement, automatic paper feeders, exposure control), but produces four-color results.

Even the film folks at **Fuji** have a photography-based color copier, the AP5000, that produces results suitable for framing from hard-copy originals as well as negatives and slides ranging in size from 35mm to 8x10 inches.

PLAIN-PAPER FACSIMILE

Not even the computer has had the kind of impact on business as the fax machine has. In five short years, it has inspired an entire new vocabulary (the term "fax" can be used as a verb, an adjective or a noun describing both the machine and its output), replaced the hot line to the Kremlin in the Oval Office, and become as critical as the telephone to an office's communications system.

Most fax-filled offices would appreciate the **Ricoh** FAX7000. It sports 2,000 speed-dial codes, bar-code programming, a 1,200-page memory and a 30-page document feeder to handle those gargantuan sales reports without feeding it into the machine one page at a time.

The **Sharp** FO-5200 generates a cover sheet automatically that lists date, time, receiver's name, number, sender's name and number, and the total number of pages sent. Not only does this save money, it eliminates the tendency to put fax puns (recent favorites include "Fax are stupid things" and "Jumpin' Jack Fax") on cover sheets.

The **Panasonic** UF-750 has a super-fine resolution mode for detailed reproduction of small-print originals, and also features 16-step halftone resolution, automatic background control and contrast selection for clear transmission of photographs.

The dex 730 from **Fujitsu Imaging Systems of America** has a 50-page multifile memory that accepts documents in up to 99 files for delayed transmission, broadcasting, polling or out-of-paper reception of incoming fax messages.

The NEFAX 80 from **NEC America** not only transmits personalized document messages, it *talks* to fax users. A "voice response" feature allows a user to record a message to respond to incoming calls; "announcement to recipient" automatically reports a document was sent; and "announcement to sender" informs the sender if the transmission was successful.

Canon U.S.A. offers a full line of high-end laser facsimile machines. Its FAX-L6500 features a 20-megabyte hard-disk drive that stores up to 800 pages of information, reduction/enlargement of images from 35 up to 800 percent, and a transmission time of three seconds. The FAX-L770 sports Canon's exclusive UHQ (Ultra High Quality) image processing system and "Hyper Smoothing" which results in near-perfect images. And for the executive that uses a fax more than the telephone, the new FAXPHONE 15CD has a 150-number telephone directory, a 150-appointment calendar and even built-in calculator functions.

For offices that don't need anything more than an upgrade for its original fax machine (and if yours is over three years old, it's as out of date as a manual typewriter), the following units pack in features at prices usually under $3,000.

The FA-770X from **Mitsubishi** lets users program four groups of 25 numbers each, and at the touch of a button, documents stored in memory can be broadcast to one of the groups. The **Murata** F-55 offers 62 pages of internal memory, a 50-page document feeder and an optional interface that lets users get plain-paper output from Hewlett Packard-compatible laser printers and perform direct fax communications from personal computers, minicomputers and mainframes.

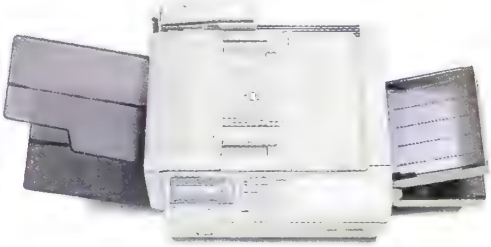
Want plain-paper fax output, but don't want to replace your existing fax machine? The **Minolta** PPF 1000 is a receive-only unit that

Multiple Choice.

Which state-of-the-art fax is designed and built by an $18 billion world leader in communications and computers with over 20 years of fax experience, and backed by the only dedicated nationwide fax service organization in America?

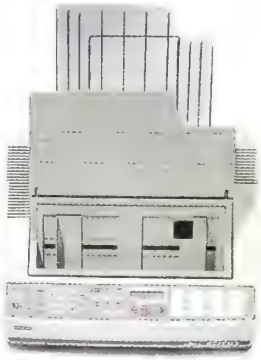
dex 7800

☐ The ultimate plain-paper fax.



dex 730

☐ Built-for-business plain-paper fax.



dex 6700

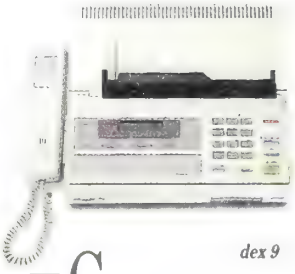
☐ Modular, expandable fax.

dex 460/470

☐ Affordable memory fax with plain-paper capability.

dex 160/170

☐ Value-packed power fax.



dex 9

☐ Compact, personal fax.

✔ All of the above.

For a professional quality fax with the features you need most, the right choice is Fujitsu.
Contact Fujitsu Imaging Systems of America, Corporate Drive, Commerce Park, Danbury, CT 06810.
Or call: **1-800-243-7046.**

FUJITSU

The global computer & communications company.

dex is a registered trademark of Fujitsu Imaging Systems of America, Inc.

prints six pages-per-minute from an adjustable 250-sheet paper cassette. The suggested list price is approximately one-half the cost of most plain-paper fax systems.

SCREEN-BASED TYPEWRITERS

Did radio go away when the movies, then television, made audio-only entertainment as old-fashioned as hoop rolling?

Did everyone throw away conventional ovens after the microwave invaded the kitchen?

So why does everyone think the typewriter is as doomed as the corner soda fountain?

True, computers can do everything a typewriter can, plus about a trillion things it can't. However, old habits die hard (quick, how many #2 lead pencils are in your desk?). Most people don't need all the horsepower of a PC to churn out correspondence, reports and transcriptions. Lee Thompson, president of Smith Corona, frequently likens using a computer to type to "shooting rabbits with a cannon."

Xerox has taken pity on the eardrums of office workers by introducing its Series 62 typewriters featuring patented technology that dramatically reduces the sound of the daisywheel printing mechanism. At full speed (20 characters-per-second), its sound level is a mere 52 decibels, versus around 65–70 for standard daisywheel typewriters. The pitch of the sound of impact has also been reduced by nearly six octaves. In other words, it's so quiet, you'll actually find yourself wondering if anyone's doing any work.

Compatibility with personal computers has become critical for many offices who use PCs and typewriters to produce documents. One of the many typewriters using MS-DOS is the Startype 150i from **AEG Olympia**. Not only can the operator use off-the-shelf software, the 12" black-and-white CRT screen features a WYSIWIG (What You See Is What You Get, pronounced "whizzy-wig") display.

Brother has taken the PC-compatibility concept a step further with its TS-3050. Not only does it work just like an IBM XT, it sports both a daisywheel and dot-matrix printer. This means graphs and graphics can be incorporated into the same document without cutting and pasting. A software package developed by ShareData is integrated into the TS-3050, enabling the user to do spreadsheets, graphics, data management, administration, and, lest we forget, word processing.

THE MOBILE OFFICE

Despite all the advances in communications, real business is still conducted face-to-face. While air travel can be a dicey proposition at best, business travelers don't have to suffer when it comes to being away from the office and its systems. In fact, you can take the equipment with you.

The laptop computer and the cellular telephone are as common as briefcases on most business flights. Mobile fax machines are the next step for the businessperson on the go. Weighing less than 19 pounds,

the **Fujitsu** dexExpress is compatible with virtually all cellular and regular phones, and operates out of a specially-designed carrying case that can run on AC or DC current. It can even send and receive transmissions from a car.

While laptops replicate almost all the functions of a regular personal computer, they can be expensive and a bit bulky to lug around. For people who only need word processing and maybe some spreadsheet work, **Smith Corona** has a low-cost alternative that weighs less than seven pounds. The PWP 270LT is packed with features like a 75,000-word dictionary, an electronic thesaurus, a Word Count feature that alerts users to overused words, an optional modem and even a portable letter-quality printer. It fits easily on the meal tray of an airplane and retails for less than $850.

For those who want something even more portable, **Sharp** has recently expanded its Wizard line of electronic organizers. Hailed as a "digital Filofax," the original Wizard can tell time across the globe, store and retrieve addresses and phone numbers and track expenses. It functions as a calculator, an alarm clock, a calendar, a word processor

TOP: Fujitsu dexExpress portable facsimile machine

RIGHT: Smith Corona PWP 270LT laptop personal word processor

Mark Meyers, Corporate President
Miami, FL

Gussie Carter, Hotel General Manager
Cairo, GA

Peter Castro, Advertising Executive
New York, NY

Mita copiers duplicate in ways other copiers can't.

In a national survey, nearly nine out of ten people who use Mita stated in no uncertain terms they were very satisfied.

Not only with the quality of our copies.

But also with the durability of our copier: of all Mitas sold in the last 5 years, 90% are still going strong.

Producing crisp clear copies, year after year after year, is the most valuable thing a copier can offer. It also seems to be one of the most difficult things for other copiers to duplicate.

Call 1-800-ABC-MITA. And find out what makes a Mita copier so hard to copy.

I
love
it.

Kathy Crouch, Accountant
Dallas, TX

I
love
it.

Tom Tester, Office Manager
Atlanta, GA

I
love
it.

Shirley Wheeler, Director of Printing
Atlanta, GA

I
love
it.

Barbara Getz, Law Office Manager
Oakland, PA

I
love
it.

Gene Bonham, CPA
Coral Springs, FL

I
love
it.

Larry Adair, Lawyer
Ft. Lauderdale, FL

I
love
it.

Sherman Wallace, Design Firm CEO
Gasport, NY

P O Box 599 West Paterson NJ 07424

Company/Title

City/State/Zip Phone

mita

All we make are great copiers.™

RIGHT: Canon Navigator

BOTTOM: Sharp ZQ-5000 electronic organizer

and even a string-around-the-finger reminder of important dates and appointments.

Featuring a standard typewriter-style keyboard, the Wizard Signature Series packs extensive memory and an input slot that accepts special software cards covering everything from Lotus 1-2-3 compatible spreadsheets to city directories.

TOMORROW'S TECHNOLOGY TODAY

The brave new world belongs to the new and the brave. These products open new doors in office technology, making the flow of information faster and easier than ever before.

So you think your copier is the fastest thing this side of the Roadrunner?

What if you could buy a machine that gave you 400 dot-per-inch resolution (most laser printers are 300 dpi), reduction and enlargement modes, a choice of six ink colors and programmable job memory? What if it made 130 copies-per-minute (that's over two-per-second)?

What if it cost less than $12,000?

The **Riso** RC5600 isn't exactly a copier. It's a digital duplicator that works like a miniature printing press. A plate of the original document is placed on a drum, and it's off to the races. No heat and pressure fusing system, no toner/developing assembly, no complicated optics, no photoconductor and no high-voltage electronics mean no down time.

Have you taken a close look at your secretary's desk recently? Can you find it under the clutter of the telephone, the answering machine/voice mail system, your Rolodex, your personal facsimile and her computer/word processor/typewriter?

Canon U.S.A. has come up with a single machine that combines all those functions in one box no bigger than the computer. Called the Navigator, it stores up to 300 names and telephone/fax numbers, handles up to 12 incoming voice messages, provides hard-disk storage of fax messages and functions as an IBM PC/XT-compatible computer. Phone, fax and computer functions can operate simultaneously.

With the rapid acceptance of voice mail, playing telephone tag has become a contact sport. Complex codes that could arm a nuclear missile are designed to make sure the caller finds himself talking to the voice mail's hard-disk database instead of the executive he wanted to place an order with.

Teleautograph has come up with a system that eliminates inter-office telephone snafus. Called the OMNINOTE Min-E-Mail, it consists of notebook-sized individual desktop units which communicate with each other by sending data over existing electrical wiring.

To send messages, a user simply types in a message on a full-sized keyboard, presses a key, and *voila*! The message is immediately printed out, or appears on the display, at the desk of the recipient's OMNINOTE.

The laser printer was once a high-tech bauble employed by only the most demanding computer users. Today, models from Hewlett Packard and others retail for less than $1,500.

Typical of the new breed of price-friendly compacts is the **Sharp** JX-9500. It produces six pages per minute using up to 76 different fonts in a package that takes up to 16 inches of desk space. It can emulate five popular printers—HP LaserJet Series II, Epson FX-80, IBM Graphics Printer, IBM Pro Printer and Diablo 630—and can be expanded to 4.5 MB of memory to handle the most complex desktop publishing output.

Talking to yourself is not a crime in most business circles, usually because the talker is actually dictating into a mini-cassette recorder. **Sanyo Business Systems** has redefined "mini" with its TRC 3600, a four-ounce recorder that measures ⅛" wide, 4 3/16" high and only 9/16" deep. Voice-activated recording means no fumbling with "pause" buttons, and a three-way microphone lets users insert the mic in their ear while recording two-way phone conversations.

The average secretary spends 118 hours a year at the copier.*

Barbara Champney
Author of "A Ten Minute Guide To A More Productive Office"

Making a secretary's workday the most productive it can be isn't easy. Just think about how many nuisances can cause a secretary to fall behind. For instance, inefficient office equipment such as a copier. In fact, a study by an independent research organization shows that the average secretary spends 118 hours a year at the copier. Imagine the increase in productivity if that time could be reduced by as little as 20%. The right copier can give a secretary a lot more time to do other things.

To determine what copier is best for your office it's important to ask the right questions. How many copies a month do you plan to make? Also, will you be making copies of two-sided documents? What about enlarging or reducing? It's also important to think about an automatic collating feature. It will save a substantial amount of time when copying multiple-page documents.

There are copiers in every category that will speed up certain jobs and turn previously wasted hours into productive time.

So before making any decision on what to purchase, it's imperative to plan for it. Because the right piece of equipment is a true business asset.

One way to make your office more productive is to employ the Minolta EP 8600 copier.

Features such as these demonstrate why it's so efficient:

- 50,000 copies can be produced before adding toner.
- 4,000 sheets of paper can be loaded when large capacity trays are used.
- 60 copies per minute for increased productivity.
- LED help screen displays 49 messages that solve virtually all copying problems
- Automatic duplexing makes two-sided copies from two-sided originals or two originals.
- Zoom lens for 61%–164% reductions and enlargements.
- Dual original feed produces booklets from originals copied side by side.
- Intelligent Commander allows remote programming.

For more information on the EP 8600 and a free copy of Barbara Champney's "A Ten Minute Guide To A More Productive Office," call **1-800-USA-DIAL, Ext. 777.**

COPIERS
ONLY FROM THE MIND OF MINOLTA

MINOLTA

*Survey Solutions, Inc. © 1990 Minolta Corporation

Mead Imaging
Cycolor copier supplies

DO YOU NEED SERVICE CONTRACTS?

Did you know a standard copier is more complicated than the human heart? Photography, chemistry, physics, heat, dozens of rollers, microchip controls...no wonder they break down so often. No wonder a service contract with the seller is the most important part of the sale.

You should automatically buy a service contract for all your office equipment, even though the fax machine doesn't seem to need the kind of maintenance that the copier does.

What happens the day the fax breaks down? If you have a service contract, you can probably get a loaner from the dealer within an hour or two. If you don't, you may have to ship your machine to the manufacturer, which usually means at least a month of down time. Try to imagine a month without your fax machine...it's like a car without a wheel.

SUPPLIES: THE BRAND X HEX

"Copier paper...it's all the same, right? So why pay more for brand names?"

"Toner is toner. Why not save a few dollars with generic black stuff?"

"This off-brand ribbon is just as good as the original equipment, and it's a whole lot cheaper besides."

These and other fantasies are brought to you courtesy of your service rep, the guy who's going to send his kids to college on what you're going to pay to have your office systems repaired. We're not talking about laundry detergent here...brand-name supplies for office machines are designed to maximize performance and minimize headaches.

For instance, the wrong grade of copier toner can clog and eventually destroy the delicate mechanisms that adhere the images to the paper. Cheap paper produces inferior copies and causes interminable paper jams. Low-cost ribbons can unspool into high-speed printers and tangle themselves into a $200 service call.

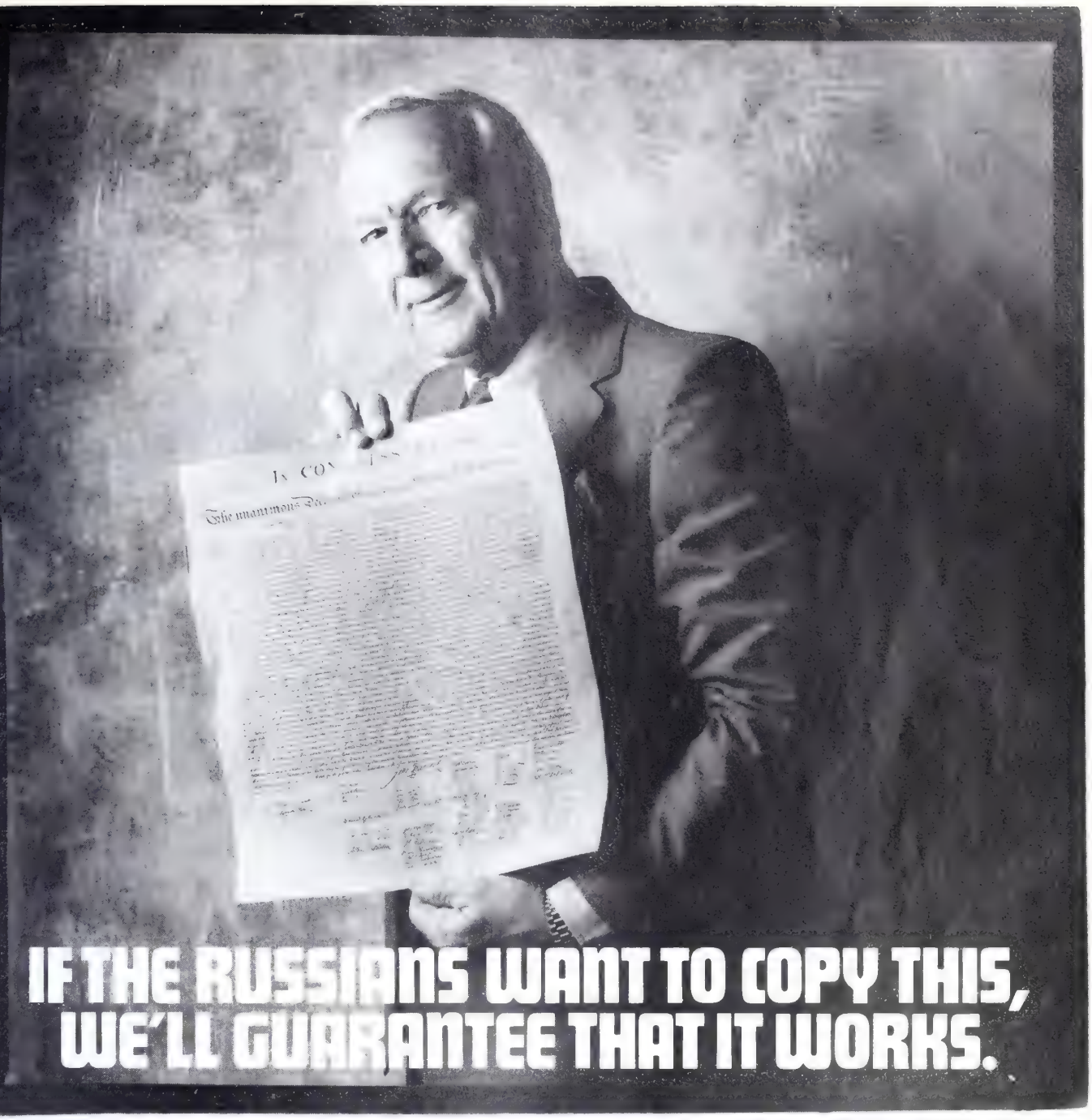
Not using the correct supplies can also void warranties and service contracts. Some machines won't even work without the proper supplies...try using anything but Cycolor paper in a Cycolor color copier, and all you'll get is a warm piece of blank paper.

CHOOSING A DEALER

Lowest prices anywhere! Everything's on sale! Shop in a warehouse! Cash and carry!

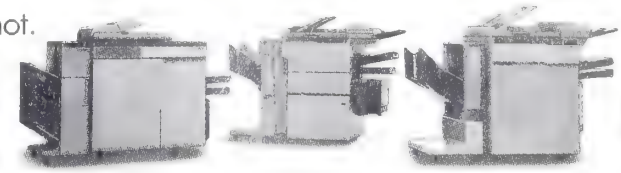
This is no way to buy business equipment, the products that will

Minolta PPF 1000
plain-paper fax


IF THE RUSSIANS WANT TO COPY THIS,
WE'LL GUARANTEE THAT IT WORKS.

To ensure life, liberty and the pursuit of happiness in your office, we'd like to propose a system that's guaranteed to work. The Lanier copier system. Lanier copiers are guaranteed to be up and running 98% of the time. You get a loaner for the times it's not.

And you get a 24-hour toll-free Hot Line for any questions you have. So for more productivity, call **1-800-852-2679**. And make a declaration that you want the very best copier system in the USA. Lanier.



LANIER
COPYING SYSTEMS

HARRIS

Some restrictions apply. See your local Lanier copier representative for full details.

Ricoh SS 830 & SS 950 digital stencil duplicators

make or break your company's communications.

If you're not dealing directly with the manufacturer, and you're not well-versed in the internal workings of your word processors, don't buy office systems based on price. The tag on the box only tells a small part of the story.

A qualified office machine dealer services what he sells. He is in direct contact with the manufacturer, so he receives the latest training and upgrades for your systems. He can train your staff how to use that high-end fax machine, and then come back six months later and retrain new employees.

Dealers can put together a system that makes sense for your needs. He can answer your questions thoroughly and honestly. Try asking the teenage clerk at the warehouse club about the differences between a $500 copier and one that costs $2,500, and you'll get a blank stare.

A qualified dealer usually sells more than one brand of equipment, so he can make sure you get the office products that are right for your needs, not his monthly quota. By mixing various machines from different suppliers, you get a custom system that doesn't lock you into a proprietary technology that may be obsolete by the time you finish this article.

And the dealer is just a local phone call away. If you have a problem, it's his job to fix it.

POWER PROTECTION: SPIKE THE SPIKE

All this fancy digital equipment has one common enemy: the electricity that powers them.

A grounded cord isn't going to save your $10,000 fax machine if lightning strikes your power supply. Even the usual spikes and surges inherent in everyday electrical lines can wreak havoc on a sensitive computer network.

A simple surge suppressor (not a glorified extension cord with a circuit breaker) can solve 99% of everyday and unpredictable power problems. One supplier, Panamax, even guarantees the equipment that's plugged into its power production products. That's right; if a power problem causes a machine to malfunction, Panamax will replace the machine itself.

For major products, an uninterruptible power supply, or UPS, may be in order. These ensure that the 150 phone numbers programmed into your fancy fax machine won't disappear because there was a five-hour power failure the night before.

Some less-reputable dealers don't like power-protection devices. Why not? They make office equipment too reliable. That's argument enough to make sure you plug into a surge suppressor before you plug in your new machine.

The NOMDA special advertising section was written by Christopher A. Clark, former associate publisher and editorial director of American Office Dealer.

Sharp JX-9500 laser printer

Imagine what a Canon Color Laser Copier could do with a pie chart.

The Canon Color Laser Copier 200 could do a lot for your business. And Digital Image Processing is the reason.

It reproduces graphics, slides and photos with clarity comparable to professional printing. As well as letting you digitally reduce by 50%, enlarge up to 400% or edit instantly.

And with automatic feeding and sorting functions, as well as a quick 20 black-and-white copies per minute, it's one color copier that's all business.

To find out more, make it your business to call 1-800-OK-CANON, or write us at Canon USA Inc. P.O. Box 3900, Peoria, IL 61614.

Canon COLOR LASER COPIER 200

The Digital Difference.

1989 "Manufacturer of the Year"

Interview

DAVID SHEARER
PRESIDENT
NATIONAL OFFICE MACHINE DEALERS ASSOCIATION

1) What are the three most important things a manager should keep in mind when buying office systems and equipment?

A business equipment and systems purchase is often a major purchase for an office, affecting the efficiency of everyone in the company. Because the decision is so critical to the function of the business, the person doing the purchasing needs to take the time to consider not only what they need now, but what they anticipate they will need in the future.

First, the manager needs to determine what their needs are. What do they need to accomplish with a particular type of machine? By determining the needs, they can determine the features that will be beneficial to them as well as the features they don't need.

Secondly, it is vitally important to know the supplier, and the supplier's reputation. Is the supplier informed and educated on a variety of machines? Finding the right supplier can help you determine which machine will best accommodate your company's goals.

And last, a buyer must be assured of the ability of the seller to furnish services and support. Training, service and other types of support are as important as the selection of the equipment.

2) How can a NOMDA dealer help someone who isn't sure about his or her office equipment needs?

Most dealers have the expertise to survey the specific needs of a business and can make suggestions to the customer regarding which pieces of equipment will satisfy their needs. NOMDA dealers are experts in ascertaining business equipment and systems needs because they make business equipment and systems their primary products. And, according to a recent survey of NOMDA dealers, the average number of years in business is 11–15, and over 25% have been in business over 30 years. With this kind of longevity and stability, a customer has reason to expect the dealer to know this business very well, and also to know the correct solutions to business equipment problems.

3) What additional value does a NOMDA dealer offer his customers?

As an association, NOMDA works very hard to provide its dealer members with education and information on this fast-paced industry. Without this kind of support, a dealer would be hard-pressed to be able to keep up with the constant changes that are going on. For example, a NOMDA dealer would probably know of a new product or technology on the horizon that would be of benefit to a customer, and can help them plan to incorporate it into their business.

Also, NOMDA dealers traditionally have been a part of their communities. They live and work in the same community that most of their customers do. Because of this, I think there is often a bond between the dealer and his customer. It may sound old-fashioned, but many people like the idea of patronizing a business where they know the people in the store and can enjoy a friendly, ongoing business relationship.

4) How does NOMDA itself add value to an office equipment purchase?

NOMDA monitors the industry for the benefit of the end-user, dealer member and manufacturer. We try to keep the lines of communication open to make sure that the business practices of this industry are fair and equitable for all parties involved.

By encouraging consumers to consider the after-the-sale support that is sometimes overlooked, NOMDA helps those consumers to make the wisest office equipment purchase that meets their long-term needs.

5) What benefits does NOMDA as an association offer dealers who aren't affiliated with the association?

NOMDA offers dealers the tools they need to survive. Like every other industry, the competition can be ruthless. Without such NOMDA benefits as the national convention, which offers a chance to see the latest products and networking opportunities with other dealers; information from our monthly publications and research; and educational seminars that can help a dealer run his operation more effectively. I think a dealer would find it very difficult to compete in this sometimes cut-throat business.

As an association, we maintain a straight forward and clean line of communication throughout our international industry. As a multi-billion dollar international industry, changes in technology occur almost on a daily basis. Those technological advancements affect everything from price to service to distribution.

Canon Introduces Laser Class.™

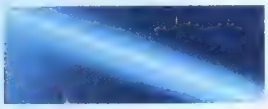
Buy a Canon Laser Class fax and it could be the last fax you'll buy for a long time.

That's because a Laser Class fax has features that won't soon be outmoded. They actually keep pace with expanding needs.

Like the memory capacity of our new FAX-L770. As your fax network expands, the L770 can expand its capacities, too, allowing greater volumes to be received into memory or stored for transmission.

Laser Precision on Plain Paper.

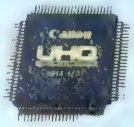
The L770 uses a laser process to print incoming images on plain paper.



This means your faxes will look better, will last longer, and won't curl or fade like thermal paper faxes. And you won't have to copy them before filing. Laser printing means they're consistently faithful to the original.

A Better Image, Sending and Receiving.

The L770 can improve an incoming image. An exclusive feature called Hyper-Smoothing actually compensates for the image quality of an incoming fax. So the images you receive are clearer, without the fuzzy edges that can make reading text difficult.



And with Canon's UHQ imaging technology, the images you send are better, too. Even combinations of small type and halftones are virtually indistinguishable from their original.

Built-In Reliability.

The L770 is also designed to be more reliable than other plain paper laser facsimiles. Canon's exclusive cartridge system stores everything that can run out or wear out in one neat disposable unit.

Replacing them is as easy as popping in a new cartridge.

The new Canon Laser Class FAX-L770. After a few minutes you'll be glad you bought it. After a few years you'll be ecstatic. For information, call 1-800-OK CANON.

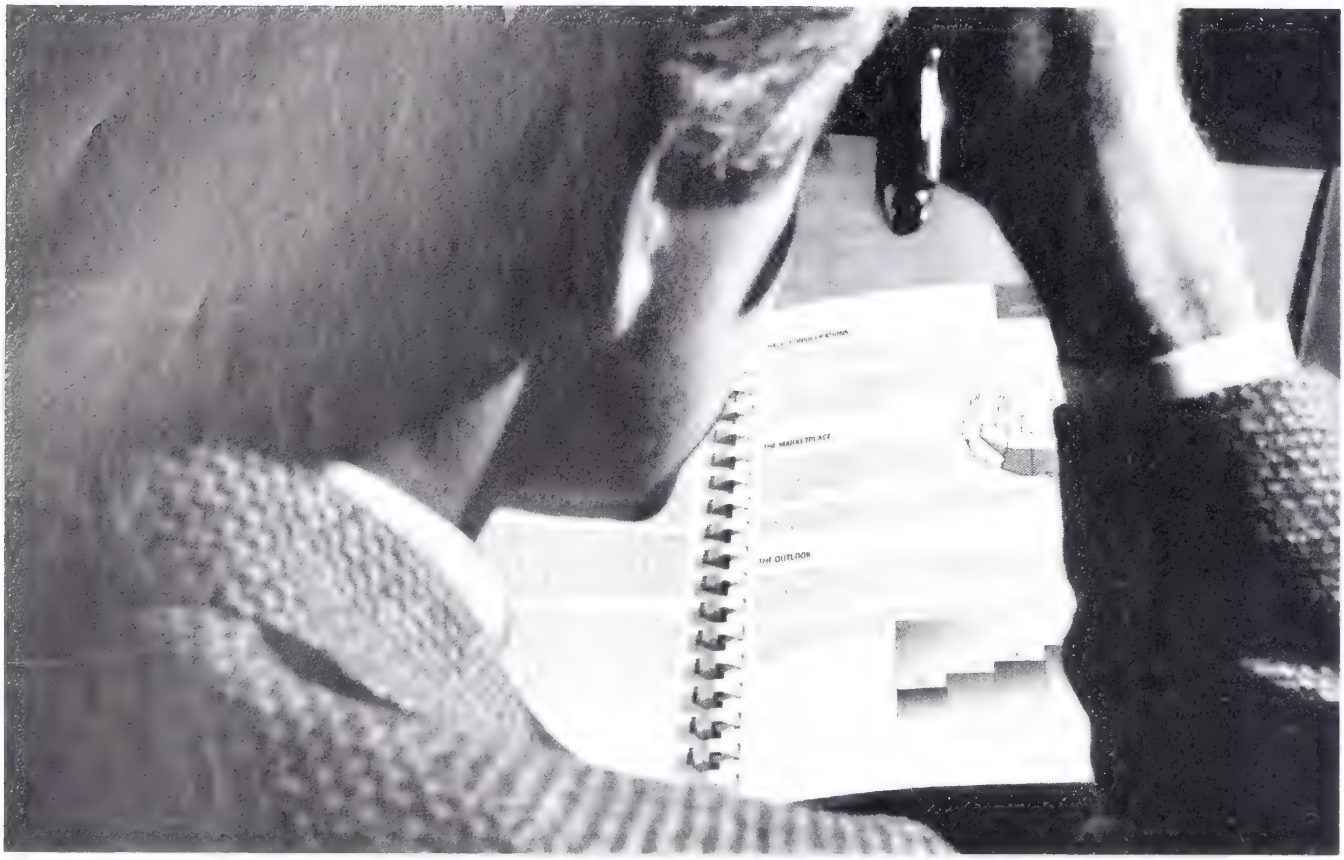
The only thing not built into our laser facsimile is obsolescence.

Canon
LASER CLASS
FAX-L770

1989 "Manufacturer of the Year"
Awarded by National Office Machine Dealers Association to Canon USA, Inc. for outstanding dealer support.

Enjoy easy extended payments with the Canon Credit Card. Ask for details at participating Canon dealers and retailers. Available only in U.S. © 1990 Canon U.S.A., Inc.

There's a year of your life in this proposal.
Midnight oil, weekends, even your anniversary.
But if it sells, it's worth every minute.



When it's important, it belongs on Hammermill paper.

Any proposal speaks a little more persuasively when you put it on Hammermill paper. A little more authoritatively.
Why Hammermill?
It could be the substance suggested by our watermarked bond papers. The sharp, down-to-business readability of our copier papers. The crisply contemporary colors of our eye-catching offset papers.
Hammermill makes practically every kind of business paper there is. And every one has that air of importance that helps make sure what you have to say gets the attention it deserves.

HAMMERMILL PAPERS®

Where America conducts its business.

© 1990 International Paper Company

INTERNATIONAL PAPER

dex to Companies

ndex gives the starting page for a story or fea- vith a significant reference to a company. Most liaries are indexed under their own names. anies listed only in tables are not included.

Systems 56
Signal 58
an Airlines 33
an Express 78
an International 35
38
ics 88
n 62
Technology 56

ck & Wilcox 64
s Trust 45
e Nationale de 80
ys de Zoete 45
91
ce 75
rd Capital 72
& Decker 78
64
y Savings Bank 72
r Forest Industries 88
78
way Management 72
vick 10

Vision 10
r 75
ke Cinemas 37
cor 77
Manhattan 72
n 77
ler 70
lex Odeon 37
rp 45, 80
ado Interstate Gas 60
aq Computer 34
uter Associates 56
gra 75
olidated ghtways 42
rol Data 62
Enterprises 36
Research 62

Crédit Agricôle 80
Cushman & Wakefield 72

D

Dai-Ichi Kangyo Bank 80
Deutsche Bank 45
Deutsche Kreditbank 45
Digital Equipment 34
Digital Radio Laboratories 36
Dresdner Bank 45
Drexel Burnham Lambert 72
Du Pont 58
Dun & Bradstreet Software Services 56

E

Eichner Properties 72
Eli Lilly 38, 39
Emery Air Freight 42
Equifax 57
Exxon 72

F

Federal National Mortgage Assn. 78
First Boston 52
Fischbach 35
FMC 64
Ford 50, 64
Frito-Lay 54
Fund American 78

G

Genentech 38, 77
General Dynamics 64, 70
General Electric 64
General Instrument 36
Genetics Institute 77
Global Marine 78
Grumman 64, 68

H

Havencraft of New England 10
Hewlett-Packard 64
Hughes Aircraft 64
Human Resource Services 10

I

IBM 34, 39
Information Resources 54
Integrated Genetics 10
Integrated Resources 78
International Cablecasting Technologies 36
ITT 50

J

J. Henry Schroder/ Wagg 45
Jostens 78

K

Kraft 54
Kroger 54

L

Life Support Products 88
Lockheed 64
Loral 64
Lotus Development 56
LTV 42

M

McDonald's 78
McDonnell Douglas 64
Medtronic 62
Mercedes-Benz 50
Merrill Lynch 45, 72
Metaphor Computer Systems 54
Microsoft 34, 56
Monitor 52
Morgan (J.P.) 80

N

Natural Fuels 60
NEC 46
Netframe Systems 34
New York Stock Exchange 31
Nielsen (A.C.) 54
Nintendo 46
Northrop 64

O

Ogden 78
Oracle 56

P

Paribas 45
Pathmark 54
Payload Systems 59
Penney (J.C.) 72
PepsiCo 54, 78
Peter Kiewit Sons' 35
Philip Morris 78
Planters LifeSavers 54
Procter & Gamble 39, 54
Products Finishing 88
Public Service Co. of Colorado 60

R

Revlon 32
RJR Nabisco 54, 75
Rockwell International 64
Rothschild (N.M.) 45

S

Safeway Stores 75
Salomon Brothers 45
Sega Enterprises 46
Serono Laboratories 38
ShowBiz Pizza Time 78
South Shore Bank 39
Space Industries International 59
Stop & Shop 32
Stride Rite 78
Synergen 77

T

TCI West 36
Teachers Insurance & Annuity 72
Tele-Communications 42
Textron 64
Time Equities 72
Trans Union 57
Transgenic Sciences 10
Tri-Sum Potato Chip 54
TRW 57
TW Holdings 78

U

United Nuclear 64
USLife 78

V

Varian 64
Vector Securities International 42
Verimed 88
Vertex Pharmaceuticals 59
Viacom International 36
VMS Realty 72

W

Wellington Management 32
Wells Fargo 80
William Kaufman Organization 72

X

Xerox 39
Xoma 77

Y

Yamaichi 42

BREITLING
1884

INSTRUMENTS
FOR PROFESSIONALS

OLD NAVITIMER,
self-winding chronograph.
18 kt. gold, steel bicolor, steel.
Leather strap or metal bracelet

WORLD
EQUESTRIAN
GAMES
STOCKHOLM
1990
BREITLING

BREITLING USA INC.
TWO STAMFORD LANDING, SUITE 165,
STAMFORD, CT 06902
TEL.: 203/327 14 11
FAX: 203/327 25 37

The 90s: Business Gateway to the Pacific Century

Business Week announces a special advertising section on the Asia Pacific Region.

Issue Date: November 12, 1990
Closing Date: October 1, 1990
Editions: California, West, Asia and China
Circulation: 295,000

The Pacific Rim represents unsurpassed opportunity for growth. The region has achieved substantial economic growth almost without precedent.

This November, Business Week will publish a special advertising section showing how your company can benefit from the extraordinary opportunities offered by this dynamic business region.

Designed to help you target the decision makers involved in Pacific Rim trade and investment, the section will reach nearly 300,000 Business Week subscribers in California, the West, Asia, Australia and China.

Be a part of "The 90s: Business Gateway to the Pacific Century." Don't miss this special opportunity to advertise your products and services to Pacific Rim business leaders.

For more information, contact:

New York: Barbara Daly 212-512-6664
•
San Francisco: Connie Bennett 415-954-9786
•
Hong Kong: Steve Marcopoto 8682010
•
Sydney: David Strike 922-2977
•
Melbourne: Ian MacDonald 820-2688
•
Tokyo: Paul Ishii 581-9811

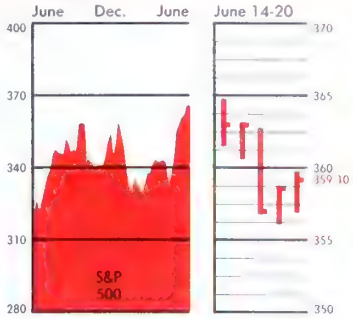
BusinessWeek
THERE IS NO SECOND PLACE

nvestment Figures of the Week

MENTARY

ouraging week in the finan-
arkets. The Dow Jones in-
l average rose to a new
f 2935.9 on June 15. But
next trading day, June 18,
ged 53 points in light vol-
Bond prices and the dollar
ook a hit. Interest rates were
ned by unexpectedly strong
rial production numbers.
prices rose a bit on June
t volume remained tepid.
n bourses, notably Toronto
ondon, were likewise unin-
performers.

STOCKS

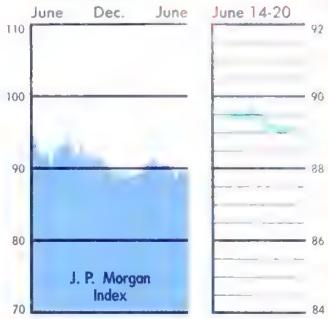


52-week change **+12.1%** 1-week change **–1.6%**

BONDS

52-week change **–2.1%** 1-week change **–1.2%**

THE DOLLAR



52-week change **–5.5%** 1-week change **–0.6%**

ARKET ANALYSIS

STOCKS	Latest	% change Week	% change 52-week
JONES INDUSTRIALS	2895.3	–1.2	17.5
OMPANIES (Russell 1000)	186.8	–1.7	9.9
L COMPANIES (Russell 2000)	168.2	–1.6	–1.2
OMPANIES (Russell 3000)	199.0	–1.7	9.0

RGN STOCKS	Latest	% change (local currency) Week	% change (local currency) 52-week
ON (FINANCIAL TIMES 100)	2371.2	–1.4	9.2
O (NIKKEI INDEX)	32,087.8	–0.9	–3.8
NTO (TSE COMPOSITE)	3530.5	–2.1	–5.4

FUNDAMENTALS	Latest	Week ago	Year ago
90-DAY TREASURY BILL YIELD	8.0%	7.9%	8.4%
30-YEAR TREASURY BOND YIELD	8.5%	8.4%	8.3%
S&P 500 DIVIDEND YIELD	3.2%	3.1%	3.5%
S&P 500 PRICE/EARNINGS RATIO	16.5	16.8	12.5

TECHNICAL INDICATORS	Latest	Week ago	Reading
S&P 500 26-week moving average	342.9	342.3	Positive
Stocks above 26-week moving average	45.9%	50.0%	Neutral
Speculative sentiment: Put/call ratio	0.36	0.32	Neutral
Insider sentiment: Vickers sell/buy ratio	0.98	0.92	Positive

DUSTRY GROUPS

BRIDGE INFORMATION SYSTEMS INC

-WEEK LEADERS	% change 4-week	% change 52-week	Strongest stock in group	% change 4-week	% change 52-week	Price
AMUNICATIONS EQUIPMENT	7.3	33.6	M/A-COM	22.6	–42.4	4¾
SONAL LOANS	6.0	–5.6	HOUSEHOLD INTERNATIONAL	10.4	–8.4	50⅜
TAURANTS	6.0	22.4	WENDY'S INTERNATIONAL	28.6	3.8	6¾
USEHOLD PRODUCTS	5.8	41.5	PROCTER & GAMBLE	7.7	51.0	83⅝
OSPACE AND DEFENSE	5.7	16.1	BOEING	11.1	75.0	58⅝

-WEEK LAGGARDS	% change 4-week	% change 52-week	Weakest stock in group	% change 4-week	% change 52-week	Price
LD MINING	–12.7	13.3	HOMESTAKE MINING	–14.8	21.1	16½
AND GAS DRILLING	–12.0	32.8	ROWAN	–16.8	49.2	11¾
S	–6.6	11.6	TONKA	–34.6	–52.3	6⅝
MEBUILDING	–6.6	–22.4	U. S. HOME	–20.0	–46.7	1
ERSIFIED MACHINERY	–4.7	20.3	DEERE	–8.4	20.6	71

UTUAL FUNDS

MORNINGSTAR INC.

ERS

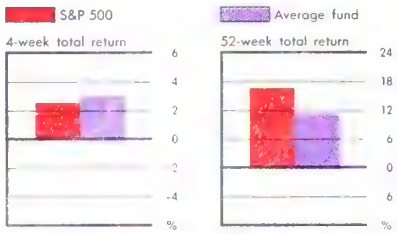
eek total return	%
H AGGRESSIVE GROWTH	11.2
LL & BEAR SPECIAL EQUITIES	11.2
UCE	10.5

eek total return	%
UITY STRATEGIES	59.5
ELITY SELECT ENERGY SERVICE	53.1
ROWE PRICE INTERNATIONAL DISCOVERY	48.8

LAGGARDS

Four-week total return	%
STRATEGIC INVESTMENTS	–16.2
STRATEGIC GOLD/MINERALS	–14.3
BENHAM GOLD EQUITIES INDEX	–13.4

52-week total return	%
NATIONAL REAL ESTATE INCOME	–17.6
STRATEGIC GOLD/MINERALS	–17.0
BLANCHARD PRECIOUS METALS	–16.9



LATIVE PORTFOLIOS

DATA RESOURCES INC.

r amounts
sent the present
of $10,000
ted one year
n each portfolio

ntages indicate
ay total returns

U. S. stocks	Money market fund	Treasury bonds	Foreign stocks	Gold
$11,392	$10,718	$10,627	$10,540	$9,543
–1.99%	+0.15%	–0.32%	–0.33%	–2.00%

a on this page are as of market close Wednesday, June 20, 1990, unless otherwise indicated. June 19. Mutual fund returns are as of June 15. Relative portfolios are valued as of June 19. A more
y groups include S&P 500 companies only, performance and share prices are as of market close detailed explanation of this page is available on request.

DON'T LEAVE DEFENSE WORKERS DEFENSELESS

With the cold war behind us, the U. S. faces tough questions about how to redeploy defense capacity and redirect its defense resources. In the emerging debate, economists and corporate leaders largely reject the notion of nationally mandated conversion schemes. Rightly so: Enticing defense contractors to utilize existing plant and equipment would distort the process of restructuring or diversification. Market mechanisms can more efficiently allocate these resources.

Yet the federal government should play a central role on the human side of the adjustment process. Most critically, national leaders must begin to see the job skills of defense workers as a vital economic resource that ought to be protected, "converted," and maximized in an orderly way. As America beats its swords into plowshares, the focus must be on human capital.

There are two key policy challenges. First, defense workers, among them the most talented engineers and technical people in the nation, must be helped in finding productive new jobs. Faced with escalating foreign competition, the U. S. needs to marshal its resources effectively. We need better information on opportunities nationwide. Second, government must help develop an orderly retraining program for defense workers and others whose job skills are not equal to a fast-changing, competitive world.

What's needed is a better employment service with more capacity to test skills, counsel workers, refer them for training, and post real jobs. A national job bank that really matches skills to needs, such as those that flourish in Western Europe, is well within America's technical capacity. Perhaps this could even be financed out of existing funds. The Labor Dept. already administers more than 1,700 local job-services offices, paid for out of payroll taxes. Only part of the money collected is actually spent on current services, with the rest held in trust. At the same time, the U. S. ought to coordinate and better fund its various labor training programs and work with business to set training standards and establish apprenticeship programs. The need is great. The time is now.

WHAT U.S. BANKS NEED IS CHEAPER CAPITAL

Over the past decade, Japanese banks have ridden the crest of their country's huge trade surpluses to become the biggest lenders in the world (page 80). By the Bank for International Settlements' reckoning, they now control 38% of all international lending, compared with a 14% share for U. S. banks. Much of Japan's banking gains have come at the expense of major U. S. banks, which are bedeviled by an endless array of bad loans to Latin Americans, real estate developers, and leveraged-buyout artists.

Many U. S. bankers and members of Congress believe that forcing Tokyo to allow more American lenders into Japan's financial markets, where local banks still retain a 98% market share, will somehow redress the banking imbalance. In fact, the Senate is considering legislation that would restrict Japanese banking activities in the U. S. if Tokyo doesn't open up soon. But that measure misses the point. The American banks' real problem is capital: It costs them too much to raise it, and without it they can't compete. Until Washington recognizes that point, U. S. banks likely will continue to fall behind the Japanese—and Europeans, too—in the global banking race.

U. S. bankers argue that Washington could help them by streamlining bank regulation and by focusing more on building up America's financial competitiveness. The streamlining would help somewhat. But the only answer to gaining competitiveness is to raise the level of U. S. savings. No one says American capital has to be as cheap as Japan's. But the gap needs to be narrowed. If it isn't, U. S. banks—and other industries—will continue to find that when you're forced to live off other nations' savings, you'll probably end up in second place.

BIG SCIENCE SHOULD BE GLOBAL SCIENCE

In early June, Deputy Energy Secretary W. Henson Moore traveled to Japan and South Korea, rattling an enormous tin cup. Congress had just threatened to pay only $5 billion of the $8 billion that the Energy Dept. needs for its mammoth particle accelerator, the Superconducting Super Collider (SSC). So Moore is panhandling for a few cool billions to make up the difference.

It's the right idea, but the wrong approach. Some endeavors in science—such as building particle accelerators and fusion reactors, sequencing the human genome, or lofting a space station—are now too large and too expensive for one country to do alone. But the U. S. has always been a reluctant and unreliable partner in international scientific ventures. Most of our big projects have been conceived in an atmosphere of "keep America first" jingoism that drives away potential contributors. And where the U. S. has tried to work in concert with foreign partners, for example in launching joint space probes, it has had a disturbing tendency to cancel projects before they are finished, leaving other countries holding the bag.

Rather than unilaterally launching grandiose schemes and belatedly asking for foreign help, the U. S. ought to plan Big Science projects as international ventures from the beginning—and make the long-term commitments necessary to finish the job. It could be a painful process. We might find out that the world's physicists would rather add new particle accelerators to CERN, Europe's high-energy physics lab, instead of building the SSC, or that space scientists have a low opinion of the space station. But ultimately, both science and the U. S. would benefit. We'd get more scientific bang for the buck—and wouldn't run the risk of being odd man out when other nations work together.

July 9

▶ BOEING'S EXPORT MACHINE ▶ HONDA'S NI

3 9042 02349771 9

TURN CANADA PAGE 40

BusinessWeek

JULY 9, 1990 A McGRAW-HILL PUBLICATION $2.00

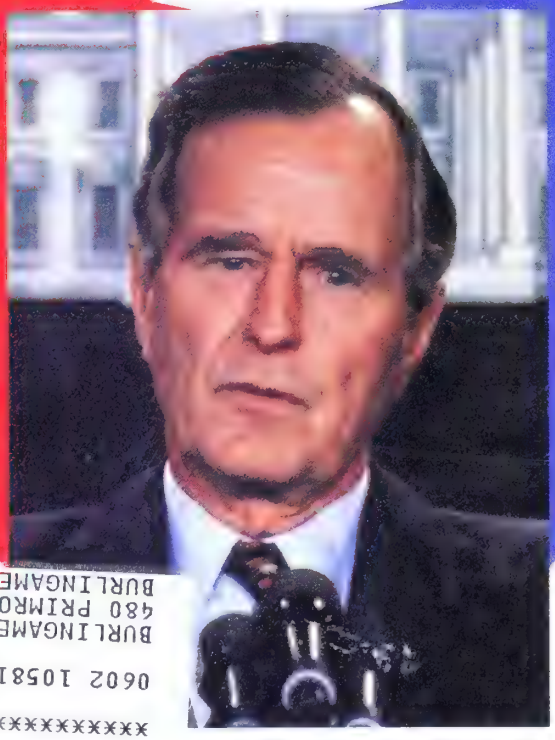
BURLINGAME
JUN 27 1990
LIBRARY

TAX FIGHT

WHAT KIND OF NEW TAXES?

HOW BIG?

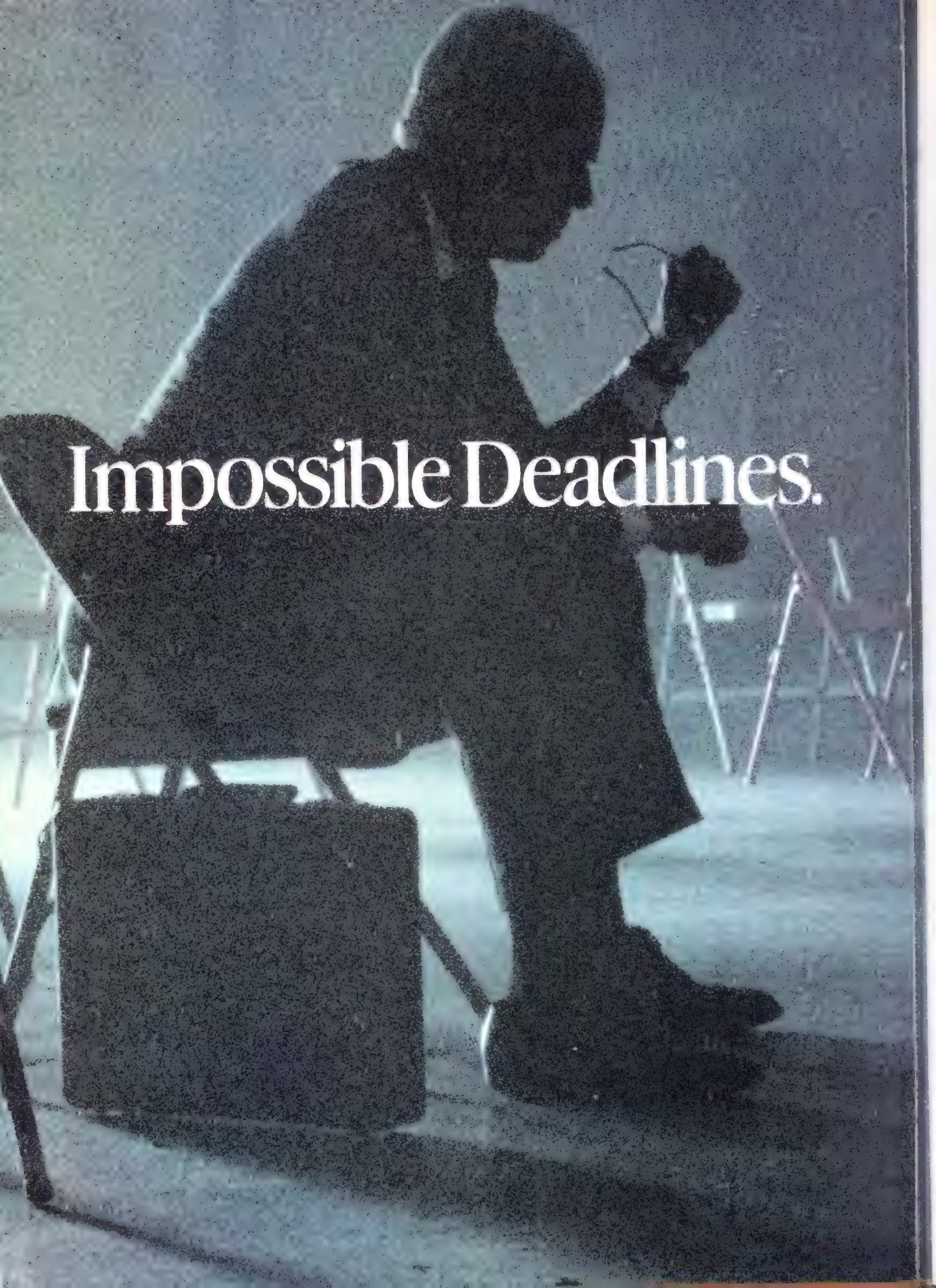
WHO PAYS?



THE POLITICAL PRICE FOR BUSH

THE BATTLE LINES IN CONGRESS

**********CAR-RT-SORT**CR30
0602 10581111160 SEP91 T3G
BURLINGAME PUBLIC LIBRARY
480 PRIMROSE RD
BURLINGAME CA 94010

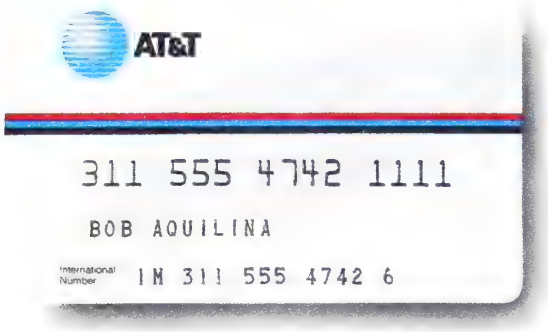

Impossible Deadlines.

Maybe Not.

The *AT&T Calling Card* can make the tightest deadlines easier to deal with. No other calling card even comes close to letting you call so many places around the world from so many places in the U.S.

Or offers as many operators to speed your calls through. Or gives you as much service.

No other calling card connects you to a worldwide network as reliable as ours. And does it all with the ease and convenience of the world's most widely accepted calling card.



So if you don't have the *AT&T Calling Card,* here's a deadline you should meet right away.

Call **1 800 551-3131 Ext. 4203** for your free *AT&T Calling Card.*

AT&T. How can we help you?™

AT&T
The right choice.

© 1990 AT&T

NUMBER 3168

BusinessWeek

JULY 9,1

CAN YOU READ THEM NOW? A FOUR-SENTENCE STATEMENT FROM THE WHITE HOUSE ACKNOWLEDGED THAT NEW TAXES ARE NEEDED

Cover Story

24 TAX FIGHT
George Bush finally said it. But by admitting he couldn't break the [illegible] will be fought along partisan, regional, and class lines. And after the dust settles, he may not have [illegible]

26 WILL THE FLIP-FLOP FLY?
The tax gamble has won praise from [illegible] ranks. Can Bush keep unhappy [illegible]

Top of the News

28 THE SUMMITS OF SUMMER
The big question at both: How much aid should the West give Gorbachev?

30 CONISTON GETS COOKING
The raiders are giving up LBOs to [illegible]

31 OLDSMOBILE'S NEW IMAGE
It's trying to win back market share

32 WASHOUT FOR CLOROX?
A detergent launch worries investors

32 P&G'S REJUVENATING TOUCH
[illegible]

33 ABBOUD'S BURSTING BUBBLE
[illegible]

34 HONEYWELL'S NEW NEMESIS
Siebe shakes up the factory floor

36 IN BUSINESS THIS WEEK
Apple Computer, Caterpillar, Discovery Airways, AIG, California [illegible]

International

40 CANADA
How a freer Quebec will reshape the [illegible]

42 EUROPE
The Suchard buyout has foodmakers [illegible]

43 INTERNATIONAL OUTLOOK
[illegible]

Economic Analysis

14 ECONOMIC VIEWPOINT
Becker: As role models go, Sweden [illegible]

17 ECONOMIC TRENDS
Detroit's big woe, dried-up lending. [illegible] Las Vegas

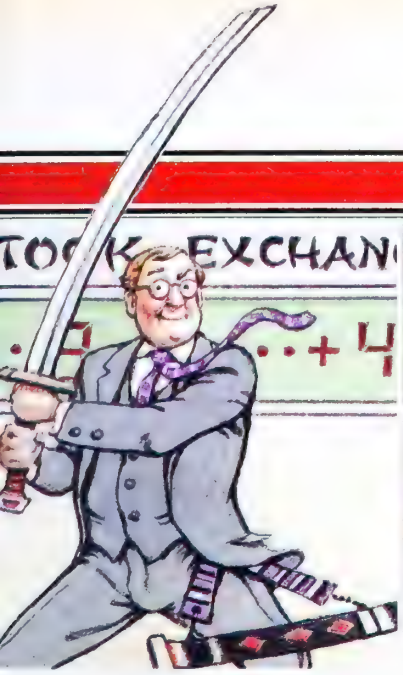
21 BUSINESS OUTLOOK
New taxes couldn't come at a worse [illegible]

68 COMMENTARY
Why the Fed should ignore the [illegible] 'credit crunch'

Government

39 WASHINGTON OUTLOOK
It's an election year, and George Bush is acting like a born-again environmentalist

78 THE STORM IN HUGO'S WAKE
Curbs on rebuilding along the East coast have gone into effect—and [illegible]



0 SAMURAI BROKERS: COMPLEX TRADING STRATEGIES SUCH AS ARBITRAGE ARE HELPING AMERICAN FIRMS MAKE BIG STRIDES WITH JAPANESE INVESTORS

58 FROM THE PITS TO THE PRESIDENCY: HONDA'S NOBUHIKO KAWAMOTO ROARED TO THE TOP ON ENGINEERING SAVVY AND SPORTY STYLING SKILLS. CAN HE HELP HONDA DO THE SAME?

46 AMERICAN EXPORT MACHINE: BOEING'S GLOBAL MARKET SHARE AND VAST MANUFACTURING RESOURCES GIVE IT AN EDGE THAT NO RIVAL, HERE OR ABROAD, CAN TOUCH

The Corporation

6 HOW BOEING DOES IT
The company got to the top by taking big risks. Now, it's betting on the 777, a still-embryonic airliner

9 CAUTIOUS IN THE COCKPIT
For Boeing Chairman Frank Shrontz, the blue yonder ain't so wild

2 A SCHLUMBERGER COMEBACK
With cost cuts and advanced technology, Baird pumps new life into the oil-field-services giant

3 A HIGH-TECH GUSHER
This well-tester spouts revenues

4 GETTING PAR UP TO PAR
Kenneth Sawyer battles to save the troubled generic drugmaker, which is in the red and under investigation

Industries

6 FULL SPEED AHEAD
Shipbuilders are seeing a surge in world orders

People

8 HONDA'S NEW HOT-RODDER
President Kawamoto is out to restore the carmaker's innovative edge and reputation for racy styling

Finance

0 U.S. BROKERS IN JAPAN
They may be doing poorly at home, but their stock is unexpectedly rising on the Tokyo exchange

62 HOW TOUGH IS TONY?
Hard-nosed CEO Terracciano has won fans, but his hands are full at troubled First Fidelity Bancorp

63 COMMENTARY
Donald Trump's crisis should teach bankers something: Caution

64 NEW KIDS ON THE BLOCK
In software, pollution control, and health care, IPOs are hot

66 INSIDE WALL STREET
Bargains at Coke's biggest bottler
Kay Jewelers may soon be betrothed
Shorting DeSoto: A sure thing?

87 INVESTMENT FIGURES OF THE WEEK

40 O CANADA: THE PROVINCE OF QUEBEC IS LAUNCHED ON A COURSE THAT WILL AFFECT THE ENTIRE ECONOMIC STRUCTURE OF NORTH AMERICA

Science & Technology

69 ALL CIRCUITS ARE GO
Sales are booming for Korean chipmakers—but the industry will need more R&D

73 DEVELOPMENTS TO WATCH
Radio waves, blackjack in bed, technology sharing, 'designer enzymes,' short circuits

Social Issues

76 COMMENTARY
High school diplomas should give those young people who earn them a ticket to the workplace

Personal Business

80 REAL ESTATE: Dream-house auctions
LEISURE: A fresh try at windsurfing
HOME: Calling the closet experts
COMPUTERS: Boston's PC museum
POTABLES: Rich Italian red wines
SMART MONEY: Overseas mutuals

Features

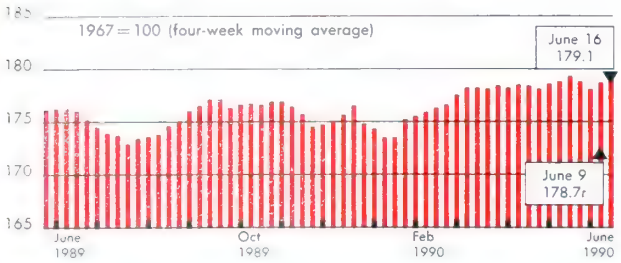
4 BUSINESS WEEK INDEX
5 READERS REPORT
12 BOOKS
Chandler: *Scale and Scope: The Dynamics of Industrial Capitalism*
85 INDEX TO COMPANIES
88 EDITORIALS
The right way to raise taxes
Living with a freer Quebec

ess Week (ISSN 0007-7135) published weekly, except for one issue in January, by McGraw-Hill Inc U S subscriber rate $39 95 per year In Canada, one year CDN $54 95 Single s $2 00. Executive, Editorial, Circulation, and Advertising Offices. 1221 Avenue of the Americas, New York, N Y 10020 Second-class postage paid at New York, N Y , and at additional mailing s. Postage paid at Montreal, P Q Registration Number 9010 Title Reg. in U S Patent Office **Postmaster:** Send address changes to BUSINESS WEEK, P O Box 430, Hightstown, N J 08520

BusinessWeek Index

PRODUCTION

Change from last week: [illegible]
Change from last year: 1.7%

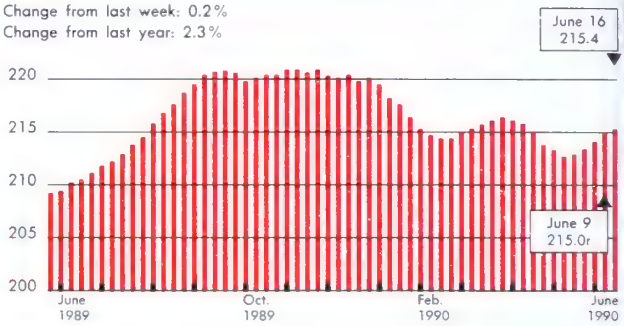


The production index advanced for the week ended June 16. On a seasonally adjusted basis, output of autos, trucks, and coal increased, while steel, paperboard, paper, and lumber production declined. Output of electric power, crude-oil refining, and rail-freight traffic was unchanged from the week before. Prior to calculation of the four-week moving average, the index stood at 180.7, nearly unchanged from the 180.6 posted in the preceding week.

BW production index copyright 1990 by McGraw-Hill Inc

LEADING

Change from last week: 0.2%
Change from last year: 2.3%



The leading index increased for the week ended June 16. The six-week gain in the index suggests that economic growth may pick up a bit later this year. Lower long-term bond yields and faster growth in real estate loans and M2 offset a fall in stock prices, a decline in materials prices, and a rise in the number of business failures. Before calculation of the four-week moving average, the index rose to 215.7 from 215.6 in the previous week.

Leading index copyright 1990 by Center for International Business Cycle Research

PRODUCTION INDICATORS

	Latest week	Week ago	% Change year ago
STEEL (6/23) thous. of net tons	1,893	1,875 #	0.3
AUTOS (6/23) units	145,014	144,492r #	2.8
TRUCKS (6/23) units	92,089	93,131r #	12.7
ELECTRIC POWER (6/23) millions of kilowatt-hours	62,244	59,115 #	7.0
CRUDE-OIL REFINING (6/23) thous. of bbl./day	13,458	13,537 #	–3.8
COAL (6/16) thous. of net tons	20,079 #	20,492	10.1
PAPERBOARD (6/16) thous. of tons	733.1 #	743.8r	–3.7
PAPER (6/16) thous. of tons	735.0 #	750.0r	1.0
LUMBER (6/16) millions of ft.	499.6 #	509.2	–1.4
RAIL FREIGHT (6/16) billions of ton-miles	20.4 #	20.7	7.9

Sources: American Iron & Steel Inst., *Ward's Automotive Reports*, Edison Electric Inst., American Petroleum Inst., Energy Dept., American Paper Inst., WWPA[1], SFPA[2], Association of American Railroads.

FOREIGN EXCHANGE

	Latest week	Week ago	Year ago
JAPANESE YEN (6/27)	154	154	144
GERMAN MARK (6/27)	1.66	1.68	1.96
BRITISH POUND (6/27)	1.74	1.72	1.55
FRENCH FRANC (6/27)	5.58	5.65	6.64
CANADIAN DOLLAR (6/27)	1.17	1.17	1.20
SWISS FRANC (6/27)	1.41	1.42	1.67
MEXICAN PESO (6/27)[3]	2,859	2,847	2,480

Sources: Major New York banks. Currencies expressed in units per U. S. dollar, except for British pound expressed in dollars.

PRICES

	Latest week	Week ago	% Change year ago
GOLD (6/27) $/troy oz.	350.650	346.900	–6.1
STEEL SCRAP (6/26) # 1 heavy, $/ton	114.50	114.50	0.0
FOODSTUFFS (6/25) index, 1967 = 100	226.6	224.5	0.3
COPPER (6/23) ¢/lb.	117.5	116.9	–1.1
ALUMINUM (6/23) ¢/lb.	73.3	73.8	–17.5
WHEAT (6/23) # 2 hard, $/bu.	3.45	3.65	–20.7
COTTON (6/23) strict low middling 1-1/16 in., ¢/lb.	77.17	75.55	19.3

Sources: London Wed. final setting, Chicago mkt., Commodity Research Bureau, *Metals Week*, Kansas City mkt., Memphis mkt.

LEADING INDICATORS

	Latest week	Week ago	% Change year ago
STOCK PRICES (6/22) S&P 500	358.07	361.72	10.9
CORPORATE BOND YIELD, Aaa (6/22)	9.26%	9.21%	1.9
INDUSTRIAL MATERIALS PRICES (6/22)	102.7	103.0	–2.2
BUSINESS FAILURES (6/15)	339	319	44.3
REAL ESTATE LOANS (6/13) billions	$373.7	$372.7	11.9
MONEY SUPPLY, M2 (6/11) billions	$3,274.6	$3,270.0r	6.2
INITIAL CLAIMS, UNEMPLOYMENT (6/9) thous.	355	351	8.9

Sources: Standard & Poor's, Moody's, *Journal of Commerce* (index: 1980 = 100), Dun & Bradstreet (failures of large companies), Federal Reserve Board, Labor Dept. CIBCR seasonally adjusts data on business failures and real estate loans.

MONTHLY ECONOMIC INDICATORS

	Latest month	Month ago	% Change year ago
PERSONAL INCOME (May) annual rate, billions	$4,700.8	$4,686.8r	6.9
ORDERS FOR DURABLE GOODS: MFG. (May) billions	$128.2	$123.4r	3.8
12 LEADING INDICATORS COMPOSITE (May) index	146.2	145.1	1.4
BUDGET SURPLUS OR DEFICIT (–) (May) millions	–$42,552	$41,758r	–67.3

Sources: Commerce Dept., Treasury Dept.

MONETARY INDICATORS

	Latest week	Week ago	% Change year ago
MONEY SUPPLY, M1 (6/11)	$807.6	$808.2r	5.0
BANKS' BUSINESS LOANS (6/13)	322.8	323.2r	1.4
FREE RESERVES (6/13)	–269r	396r	–64.6
NONFINANCIAL COMMERCIAL PAPER (6/13)	148.6	148.2r	19.7

Sources: Federal Reserve Board (in billions, except for free reserves, which are expressed for a two-week period in millions).

MONEY MARKET RATES

	Latest week	Week ago	Year ago
FEDERAL FUNDS (6/26)	8.33%	8.25%	9.58%
PRIME (6/27)	10.00	10.00	11.00
COMMERCIAL PAPER 3-MONTH (6/26)	8.17	8.16	9.13
CERTIFICATES OF DEPOSIT 3-MONTH (6/27)	8.28	8.24	9.16
EURODOLLAR 3-MONTH (6/20)	8.23	8.21	9.30

Sources: Federal Reserve Board, First Boston

# Raw data in the production indicators are seasonally adjusted in computing the BW index (chart); other components (estimated and not listed) include machinery and defense equipment.
1 = Western Wood Products Assn. 2 = Southern Forest Products Assn. 3 = Free market value NA = Not available r = revised NM = Not meaningful

Click here for power.

Let's take a moment to fantasize.

Imagine administration software that lets you add, modify and delete users, groups and volumes on your Macintosh® network. Imagine being able to backup local drives to the server. And publishing usage reports to monitor network activity and troubleshoot bottlenecks. And electronic mail that connects with any UNIX® e-mail system. And a dual-processor architecture server, designed for intensive disk operations and demanding I/O processing.

All available at the click of a mouse.

Now let's talk fulfillment: uShare Plus™ software on the Sony NEWS® fileserver. It offers all the above and more—installed, configured and administered from the comfort of your Macintosh environment. Fully AFP compliant, so all existing applications run without modification.

Click for yourself and find out. Call 1-800-624-8999, ext. 96, to arrange a demo.

SONY®

Sony Microsystems Company
651 River Oaks Parkway, San Jose, CA 95134, (408) 434-6644, FAX: (408) 954-0849

Sony and NEWS are trademarks of Sony. uShare Plus is a trademark of Information Presentation Technologies, Inc.
Macintosh and the Apple logo are registered trademarks of Apple Computer Inc. UNIX is a trademark of AT&T © 1990 Sony Corporation of America

INTRODUCING BOMBAY SAPPHIRE

The gin is unprecedented in its creation. The bottle is unprecedented in its beauty. Bombay Sapphire.

Distilled with rare and precious botanicals including Coriander Seeds from Morocco, Grains of Paradise from the Gold Coast and Cubeb Berries from Java. A total of ten of the most unusual flavors on Earth.

Their spirit is preserved in Sapphire's unique distillation where the gin vapors pass through each botanical, one by one.

Bombay Sapphire. As complex and extraordinary as the jewel that was its namesake.

47% alc/vol (94 Proof) • Bombay Sapphire Gin • 100% grain neutral spirits ©1988 Carillon Importers, Ltd., Teaneck, N.J.

ONE OF THE FEW FLIGHT TEAMS MORE SELECTIVE THAN ALASKA AIRLINES.

There are some organizations that are tougher to get into than Alaska Airlines. But not many.

Consider our flight attendants. We sort through thousands of applicants, in search of the very few who have the personality, exuberance and style that make our people stand out.

We're also very selective when it comes to choosing customer service agents, baggage handlers and maintenance specialists.

Our pilots, needless to say, are an elite group who are rigorously trained.

Do better people make better airlines? See for yourself.

Next trip up or down the west coast, fly Alaska Airlines. And fly with a team that has the right stuff.

Alaska Airlines

BusinessWeek

OR-IN-CHIEF: Stephen B. Shepard
AGING EDITOR: John A. Dierdorff
OR: William Wolman
STANT MANAGING EDITORS: Maughan, Mark Morrison, Anthony J. Parisi
DIRECTOR: Malcolm Frouman
OR EDITORS: Bob Arnold, Nancy Cardwell, Robert J. Dowl- Stuart Jackson, Richard F. Janssen, Geoff Lewis, Sally ll, Ciro Scotti, Lee Walczak (Washington), G. David Wal- Seymour Zucker
ORIAL PAGE EDITOR: John E. Pluenneke
F OF CORRESPONDENTS: Keith G. Felcyn
RNATIONAL EDITION EDITOR: Frank J. Comes
OR WRITERS: Anthony Bianco, John A. Byrne, Judith H. zynski, John Hoerr, Gene G. Marcial, Bruce Nussbaum, Pearson, Otis Port, Chris Welles, Brenton Welling
CIATE EDITORS: Duane E. Anderson, Robert Barker, Eliza- Ehrlich, Marc Frons, William J. Holstein, Jeffrey M. Lader- William D. Marbach, Mark N. Vamos
CTOR, EDITORIAL SYSTEMS & OPERATIONS: Thomas J. Reed
OR SYSTEMS MANAGER: Richard I. Ulman
URE EDITOR: Lawrence Lippmann
OMICS: James C. Cooper (Business Outlook editor), Kath- Madigan (Assoc.). Karen Pennar (Economics editor), Chris- er Farrell (Assoc.), Michael J. Mandel (Assoc.). Gene Koretz nomic Trends editor). William Glasgall (International)
RTMENT EDITORS: Books: Denise Demong **Corporate Fin-** Larry Light, David Zigas (Assoc.). **Industries:** Thane Peterson **mation Management:** Jeffrey Rothfeder **Information Pro-** ng: John W. Verity. **International Edition:** Elizabeth Weiner **national News:** Peter Galuszka. **Investment Banking:** Jon man. **Labor:** Aaron Bernstein. **Legal Affairs:** Michele B. Galen **eting:** Christopher Power, Amy Dunkin (Assoc.). **Markets & stments:** Gary Weiss **Media:** Susan Duffy **Money & Banking:** Meehan **News:** Harris Collingwood **People:** Peter Finch **Per- l Business:** Donald H. Dunn. **Science:** Emily T. Smith **Score- ds:** Robert Mims **Telecommunications:** Peter Coy. **Transpor- n:** Michael Oneal
F EDITORS: Brian Bremner, Deidre A. Depke, Naomi Freundlich, Hager, Fred F. Jespersen, Mark Landler, Leah J. Nathans, ey Reed, Monica Roman, Andrea Rothman, Troy Segal, Suzanne ey
STANT EDITOR: Laura Zinn
EDITORS: Harry Maurer (Deputy chief), Michael Mercuno, Joan er (Asst. chiefs); Marc Miller, Jack Robbins, Jim Taibi (Sr. Copy rs), Tim Belknap, Pam Black, Prudence Crowther, Carl Desens, Green, Aleta Kaufman, Cynthia McClean, David Pengilly, Malka l, Barbara Tierney; Dalia Kandiyoti, Kim Jacobs, Aida Rosano, cca Stead (Researchers)
DUCTION COPY EDITORS: Donald Halsband (Chief), Hallberg undsson, Robert S. Norman; Celine Keating, Karen Leiner, Ste- M. Romanoff
Laura Baer, Steven Taylor (Deputy directors), Jeri Hansen, Eric nberg (Assoc. directors), Pamela Harris, Craig Socia (Asst. direc- **Graphics:** Arthur Eves (Director), Joan Danaher (Deputy direc- Rob Doyle (Sr. Illustrator), Laurel Daunis, Ray Vella (Illustrators) **uction:** Mary Lee Schneider (Mgr.), Stephen J. Romeo (Asst
TOS: Sue Bloom (Deputy Picture editor), Scott Miyn (Assoc. Pic- editor), Todd James, Anne Murray, Ronnie Weil (Asst. editors) een Daly (Researcher). Bettina Baudoin (Researcher - Paris) Clark (Traffic), Lawrence Crowe (Libranan)
ORIAL OPERATIONS: Albert E. Baker, Richard Balestrino, A. Pe- lem, Yvonne Rodriguez, Claire Worley (Production managers) nas R. Dowd, Sharon L. Eng, Fidel Lee, José L. Martin, Jane M nson, Craig Sturgis, Karen Turok, Ilse V. Walton, Nicholas White eup editors), Felix Lindicy (Makeup asst.) Donald C. Pearson ic manager), Dale I. Arnold, Edgardo Torres (Production assts.)
RESPONDENTS: Jerome Zukosky (Deputy chief) **Atlanta:** Chuck ins (Mgr.), Walecia Konrad. **Boston:** Keith H. Hammonds (Mgr.), Jereski, Gary McWilliams. **Chicago:** James E. Ellis (Mgr.), David ing, Kevin Kelly, Julia Flynn Siler, Lois Therien **Cleveland:** Za Schiller (Mgr.), Maria Mallory, Stephen Phillips. **Connecticut:** Vogel (Mgr.), Lisa Driscoll **Dallas:** Wendy Zellner (Mgr.), Jim no. **Denver:** Sandra D. Atchison (Mgr.), William C. Symonds (Sr espondent). **Detroit:** James B. Treece (Mgr.), David Woodruff **ston:** Mark Ivey (Mgr.). **Los Angeles:** Ronald Grover (Mgr.), Armstrong (Sr. Correspondent), Kathleen Kerwin, Eric Schine **hi:** Gail DeGeorge (Mgr.), Antonio N. Fins. **Minneapolis-St. Paul:** ell Mitchell (Mgr.) **Philadelphia:** Joseph Weber (Mgr.) **Pitts- h:** Gregory L. Miles (Mgr.), Michael Schroeder **San Francisco:** O'C. Hamilton (Mgr.), Richard Brandt, Barbara Buell, Robert Hof, Shao. **Seattle:** Don Jones Yang (Mgr.) **Washington:** Stephen ldstrom (Sr. News Editor), Stan Crock (News Editor), Amy Borrus, Cahan, John Carey, Paula Dwyer, Dean Foust, Susan Garland, rd Gleckman, Dave Griffiths, Douglas A. Harbrecht, Bill Javetski, Lewyn, Paul Magnusson, Mike McNamee, Seth Payne, Tim t, Catherine Yang. **Bonn:** John Templeman (Mgr.), Gail Schares **sels:** Jonathan Kapstein (Mgr.) **Hong Kong:** Dinah Lee (Mgr.), Engardio. **London:** Richard A. Melcher (Mgr.), Mark Maremont. **co City:** Stephen Baker (Mgr.) **Moscow:** Rose Brady (Mgr.) **:** Stewart Toy (Mgr.), Jonathan B. Levine, Blanca Riemer **Rome:** Rossant (Mgr.). **Sao Paulo:** Jeffrey Ryser (Mgr.) **Tokyo:** Robert (Mgr.), Neil Gross, Ted Holden
ORIAL SERVICES: Broadcasting: Ray Hoffman **Business ager:** Barbara Boynton **Information Services:** Jude Hayes ctor), Judi Crowe (Asst. editor), Dana Gordon, Fred Katzenberg, e Khatami, Rex Long. **Public Relations:** Christine Summerson, phine Coppola. **Reprint Permission:** Vivian J. K. Betton **ems:** Ron Brayer, Courtenay Eddy
LISHER: John W. Patten
VP, DIRECTOR OF MARKETING: John J. Bedell
VP, OPERATIONS: Gary B. Hopkins
INTERNATIONAL: Gerd Hinske, Earl S. Moore, Jr
PLANNING & DEVELOPMENT: Barbara Munder
CIRCULATION: Kitty Carroll Williams
SALES: Constance E. Bennett (San Francisco), John R. Camp- (Stamford), Charles W. Hennessy (Philadelphia), Irwin Kornfeld York), Thomas O. McDonough (Chicago)
ECTOR, ADVERTISING BUSINESS: Linda F. Carvalho
ECTOR, PRODUCTION: Mario J. Talluto

Readers Report

THE HIDDEN COSTS OF HOME CARE FOR AIDS PATIENTS

Regarding "AIDS home care may be due for some housecleaning" (Top of the News, June 11), we agree that the challenge for the future will be to establish guidelines "that reward responsible companies and encourage home health care's continued growth while eliminating those that prey on the vulnerable." As the CEOs of home-infusion therapy providers, we are committed to joining with public and private policymakers to meet that challenge.

Unfortunately, however, you inappropriately merge home infusion therapy, home medical equipment, and home health nursing into one business. In fact, they are very different businesses with vastly different cost, pricing, and reimbursement structures.

By focusing on the estimated costs of drugs and equipment, you imply that the ultimate charges for home infusion therapy reflect undue price markups. You did not properly address the costs associated with the services of highly skilled nurse clinicians, specially trained pharmacists, and other health care professionals necessary for the provision of quality care.

These services are widely recognized by the medical community, by most third-party payers, and by accrediting and licensing bodies as vitally important in ensuring that life-sustaining therapies do not become life-threatening ones.

Charles H. Blanchard
Kent H. Kerkhof
Patrick S. Smith
Bob L. Wood

Editor's note: The writers are the CEOs of Caremark, Home Nutritional Services, New England Critical Care, and CarePlus, respectively

You fail to really inform your readers that home infusion represents more than a 50% cost savings when compared with hospitalization fees.

Home-infusion therapy companies have many more costs, as do all businesses, than just the products we deliver. We have registered pharmacists, sterile mixing facilities, billing and collections services, quality-control of products, research and development, and clinical protocol preparation for new therapies. We very often must provide all of the clinical information for a therapy before a physician will consider sending a patient home. Home-infusion therapy companies are the innovators when it comes to making it happen in the home. We educate the physician.

Yes, the infusion-therapy industry enjoys healthy profits, provided the companies are run as prudent businesses. We have created an opportunity for individuals and insurance companies to have high-tech, cost-effective health care. We have created the opportunity for patients to recover at home. We have given the AIDS patient privacy, quality of life, and a more rapid recovery. And, we save his insurance company money.

Jody Nash
Vice-President, Clinical Marketing
Health Source America Inc.
San Antonio

Your article implies that low pricing should be applauded and that the government and insurance companies should demand it, as Blue Shield has in California.

Please be assured that pricing caps like this one for home infusion therapy will allow only back-room pharmacies—which get by without providing any services—to exist. The end result will be patients who wind up back in the hospital because of complications and noncompliance.

Home infusion therapy is a service, not a product. Without the service component, there will be no home care and patients will remain in the hospital, adding to the continued uncontrolled escalation of health care expenditures.

Charles A. Laverty
Chairman
Curaflex Health Services
Rancho Cucamonga, Calif.

Moderation in pricing can be imposed by medical case managers—RNs contracted by insurance companies or employers to assess cases for appropriate delivery of care and to make referrals for services. MCMs "shop" for the

BUSINESS WEEK
JULY 9, 1990
ISSN 0007-7135

[illegible] McGraw-Hill Inc. Founder James H. McGraw (1860-1948)

[illegible] Office. [illegible] New York, N.Y. 10020. Telephone [illegible] 12,500. International [illegible] TWX 710-581-4879. [illegible] Subscriptions: [illegible] Worldwide [illegible] 1-800-635-1200.

Postmaster: Please send address changes to BUSINESS WEEK, P.O. Box 430, Hightstown, N.J. 08520. Second-class postage paid at New York, N.Y., and at additional mailing offices. Postage paid at Montreal, P.Q. Registration Number [illegible]

Copyright © 1990 by McGraw-Hill, Inc. All rights reserved. U.S. Patent Office.

Officers of McGraw-Hill, Inc.: Joseph L. Dionne, Chairman, President and Chief Executive Officer; Robert N. Landes, Executive Vice President, General Counsel, and Secretary; Harold W. McGraw, III, Executive Vice President; Frank D. Penglase, Senior Vice President, Treasurer, Operations.

Photocopying is permitted without royalty for those registered with the Copyright Clearance Center (CCC), 27 Congress St., Salem, Mass. 01970, to photocopy any article herein for the flat fee of $1.50 per copy of each article. Send payment [illegible] Without express permission of McGraw-Hill is prohibited. Address requests for [illegible] Hightstown, N.J. 08520, or call 609 426-5494. ISSN 0007-7135/90/$2.00

The Jaguar XJ6. At $39,70 May Be That You Cae

With the cost of almost everything rising to new heights, the prestige of a luxury car is now almost unattainable without a rather substantial investment.

Enter the 1990 Jaguar XJ6. At $39,700*, it offers you the beauty and style plus the prestige of a Jaguar, available at a price you'll find equally desirable.

Inside you'll find a continued commitment to J quality and craftsmanship. Hand-finished walnut, ing faced in soft, supple leather and a host of appointments surround you.

And while our XJ6 is beautiful at rest, it's even

A BLENDING OF ART AN

ne Of Its Greatest Assets
eep More Of Yours.

*Manufacturer's suggested retail price, excluding dealer preparation, transportation, license and taxes. Actual retail prices are set by the dealer and may vary.

npressive in motion, powered by a new 223-orsepower engine. An electronically controlled auto-atic transmission channels this powerplant's energies, ffering both "sport" and "normal" shift capabilities. For ure stopping power, the XJ6 is equipped with the Teves nti-lock braking system.

With all these assets for only $39,700, you may feel that this is too good to be true.

And it is. Unless you buy a Jaguar.

To experience this much automobile for yourself, call 1-800-4-JAGUAR for the name of your nearest Jaguar dealer.

MACHINE

JAGUAR

patient—to get the best service at the best price.

As an MCM, I recently negotiated the rate for daily infusion therapy from a national provider mentioned in your article from $720 per day plus nursing costs to $420 per day, all inclusive—a $115,000 annual savings.

Presently, many referrals are made by doctors and hospital home care agencies who don't shop because they have contracts with the home care companies and often are receiving kickbacks for their referrals.

MCMs serve AIDS patients as advocates and by coordinating comprehensive home care in lieu of hospitalization that is cost-effective for the provider.

Lynne Tomlinson
Farmingdale, N. Y.

'HO-HUM AND WHO CARES' ABOUT COMPETITIVENESS?

Congratulations on the truly splendid and important special issue on "Innovation: The global race" (June 15).

In 1986, in my role as Secretary of the Cabinet in the Reagan Administration, I became very concerned about our competitive standing in the world. Through much interagency consultation, we established a competitiveness program that we hoped, over 10 years, would restore the U. S.'s competitive edge.

I fought hard to make it the centerpiece of the 1987 State of the Union address but lost out to the "communications" experts who did not think it was, in their terms, sexy enough. One derided the program as "ho-hum and who cares." Now, of course, I see some of these same experts on TV bemoaning America's competitive decline.

Your issue rightfully points out that we still have the capacity to maintain our edge if we would only muster the will to do it. In particular, I was struck by a paragraph in the article on the various myths that have arisen regarding America's inability to compete. One of the things that greatly impressed us in the White House in 1985 and 1986 was the constant complaint by universities and others who were recipients of public funds for research and who were obliged to make the results of that research available. When the doors were opened, the rooms were filled with America's potential competitors, and few American companies would bother to show up. Later, they would bemoan that America's competitors were surging ahead in one new technology or another. The problem in the U. S. of how to transfer the fruits of publicly funded research into the private sector has never been adequately addressed.

Regarding Commerce Secretary Robert Mosbacher's comment concerning emerging technologies in the European Community, the real results of "1992" can be seen in the Eureka, Espirit, Race, and Brite projects. That is what 1992 is all about.

Alfred H. Kingon
New York

Editor's note: Alfred Kingon was the U. S. Ambassador to the European Communities from 1987 through mid-1989, and Secretary of the Cabinet in the White House from 1985 to 1987.

A CHILL WIND BLOWS FOR SMALL BUSINESS

Your article paints the Small Business Investment Co. (SBIC) industry as a good program that has gone bad, has outlived its usefulness, is mired in defaults, and may be closed down by Congress ("The Iran-*Contra* scandal of the small business world," Top of the News, June 4). That portrayal is totally unfounded.

The assertion that the "market is sending signals that the program may have outlived its usefulness" is completely at odds with reality. In today's credit-crunch climate, banks and other conventional sources of capital have become risk-averse to small business, making venture financing by SBICs for small-growth companies more essential than ever.

SBICs have provided over $9 billion in critically needed venture capital to more than 60,000 small-growth companies. Certainly, we're proud of our outstanding successes—home runs such as Federal Express and Apple Computer.

Even more important, we continue to provide capital to a broad array of less spectacular—but equally essential—small businesses that fuel the American economy. These are the singles, doubles, and triples by successful, growing companies that produce jobs, innovations, new products—and pay taxes.

Peter F. McNeish
President
NASBIC
Washington

All of the finger-pointing by lawmakers, the Small Business Administration, and SBIC bureaucrats at "budget cuts," "independent auditors," and "too few safeguards" as the reasons for government-financed small-business failures is nothing more than an excuse for failed socialism. Ask the people in Eastern Europe.

In a market economy, if "greedy" bankers and venture capitalists will not finance a new business, it is very unlik ly that the business will succeed.

You were correct in suggesting that is time "to finish off the program on and for all."

Donn Kie
Professor of Business Administratio
Ashland Universit
Ashland, Oh

'STATELESS' IS JUST A STATE OF MIND

Your excellent Cover Story "Th stateless corporation" (May 14) d scribed the response of large corpor tions to the emergence of the world ma ket. The rapid flow of technology ar the means of production around th globe and the clear trend for many cor panies to gear their strategies and ma agement attitudes to the global mark all point to the emergence of new glob corporate enterprises. Indeed, our co pany, SmithKline Beecham, is a prot type of the company you describe.

But I object to the term stateless describing companies such as ours. Th dictionary describes stateless as mea ing "without political community." Th new global companies—I prefer th term transnational companies—are n "untethered from their home countries The essence of the concept, and increa ingly the practice, is to be "tethered"- in more than one country. If tethere means fully accountable to national law and security regulations, then Smit Kline Beecham, with nearly equal shar ownership in Britain and the U. S., certainly tethered in both countries.

With respect to "multiple identities most of the companies you mention- Electrolux, Colgate-Palmolive, Hond IBM, etc.—work very hard to establis one strong global identity. In fact, mos of them work hard to establish a singl identity worldwide for major products brands, from mainframe computers t toothpastes.

As our corporations become globa ized, we assume more responsibility, n less. In the process, we help to defin the world market and become a majo force for global interdependence, wealt creation, and higher and increasingl common standards for the quality o life.

Henry Wend
Chairma
SmithKline Beechar
Philadelphi

Letters to the Editor should be sent to Reader Report, Business Week, 1221 Avenue of the Amer cas, New York, N. Y. 10020. Fax: (212) 512-446 Telex: 12-7960, Intl. 4998204. All letters must in clude an address and daytime and evening tele phone numbers. We reserve the right to edit letter for clarity and space.

This announcement is neither an offer to sell nor a solicitation of an offer to buy any of these securities. The offering is made only by the Prospectus Supplement and the related Prospectus.

New Issues

$600,000,000

Georgia-Pacific Corporation

$300,000,000

10% Credit Sensitive Notes Due June 15, 1997

Interest payable June 15 and December 15

Price 100%

Plus accrued interest, if any, from June 13, 1990

$300,000,000

10.10% Credit Sensitive Debentures Due June 15, 2002

Interest payable June 15 and December 15

Price 99.937%

Plus accrued interest, if any, from June 13, 1990

Copies of the Prospectus Supplement and the related Prospectus may be obtained in any State in which this announcement is circulated from only such of the Underwriters, including the undersigned, as may lawfully offer these securities in such State.

Bear, Stearns & Co. Inc.

Goldman, Sachs & Co.

Salomon Brothers Inc

Commerzbank Capital Markets Corporation | **The First Boston Corporation**

Dillon, Read & Co. Inc. | **Merrill Lynch Capital Markets**

PaineWebber Incorporated | **Shearson Lehman Hutton Inc.** | **UBS Securities Inc.**

June 1990

patient—to get the best service at the best price.

As an MCM, I recently negotiated the rate for daily infusion therapy from a national provider mentioned in your article from $720 per day plus nursing costs to $420 per day, all inclusive—a $115,000 annual savings.

Presently, many referrals are made by doctors and hospital home care agencies who don't shop because they have contracts with the home care companies and often are receiving kickbacks for their referrals.

MCMs serve AIDS patients as advocates and by coordinating comprehensive home care in lieu of hospitalization that is cost-effective for the provider.

Lynne Tomlinson
Farmingdale, N. Y.

'HO-HUM AND WHO CARES' ABOUT COMPETITIVENESS?

Congratulations on the truly splendid and important special issue on "Innovation: The global race" (June 15).

In 1986, in my role as Secretary of the Cabinet in the Reagan Administration, I became very concerned about our competitive standing in the world. Through much interagency consultation, we established a competitiveness program that we hoped, over 10 years, would restore the U. S.'s competitive edge.

I fought hard to make it the centerpiece of the 1987 State of the Union address but lost out to the "communications" experts who did not think it was, in their terms, sexy enough. One derided the program as "ho-hum and who cares." Now, of course, I see some of these same experts on TV bemoaning America's competitive decline.

Your issue rightfully points out that we still have the capacity to maintain our edge if we would only muster the will to do it. In particular, I was struck by a paragraph in the article on the various myths that have arisen regarding America's inability to compete. One of the things that greatly impressed us in the White House in 1985 and 1986 was the constant complaint by universities and others who were recipients of public funds for research and who were obliged to make the results of that research available. When the doors were opened, the rooms were filled with America's potential competitors, and few American companies would bother to show up. Later, they would bemoan that America's competitors were surging ahead in one new technology or another. The problem in the U. S. of how to transfer the fruits of publicly funded research into the private sector has never been adequately addressed.

Regarding Commerce Secretary Robert Mosbacher's comment concerning emerging technologies in the European Community, the real results of "1992" can be seen in the Eureka, Espirit, Race, and Brite projects. That is what 1992 is all about.

Alfred H. Kingon
New York

Editor's note: Alfred Kingon was the U. S. Ambassador to the European Communities from 1987 through mid-1989, and Secretary of the Cabinet in the White House from 1985 to 1987.

A CHILL WIND BLOWS FOR SMALL BUSINESS

Your article paints the Small Business Investment Co. (SBIC) industry as a good program that has gone bad, has outlived its usefulness, is mired in defaults, and may be closed down by Congress ("The Iran-*Contra* scandal of the small business world," Top of the News, June 4). That portrayal is totally unfounded.

The assertion that the "market is sending signals that the program may have outlived its usefulness" is completely at odds with reality. In today's credit-crunch climate, banks and other conventional sources of capital have become risk-averse to small business, making venture financing by SBICs for small-growth companies more essential than ever.

SBICs have provided over $9 billion in critically needed venture capital to more than 60,000 small-growth companies. Certainly, we're proud of our outstanding successes—home runs such as Federal Express and Apple Computer.

Even more important, we continue to provide capital to a broad array of less spectacular—but equally essential—small businesses that fuel the American economy. These are the singles, doubles, and triples by successful, growing companies that produce jobs, innovations, new products—and pay taxes.

Peter F. McNeish
President
NASBIC
Washington

All of the finger-pointing by lawmakers, the Small Business Administration, and SBIC bureaucrats at "budget cuts," "independent auditors," and "too few safeguards" as the reasons for government-financed small-business failures is nothing more than an excuse for failed socialism. Ask the people in Eastern Europe.

In a market economy, if "greedy" bankers and venture capitalists will not finance a new business, it is very unlikely that the business will succeed.

You were correct in suggesting that it is time "to finish off the program once and for all."

Donn Kief
Professor of Business Administration
Ashland University
Ashland, Ohio

'STATELESS' IS JUST A STATE OF MIND

Your excellent Cover Story "The stateless corporation" (May 14) described the response of large corporations to the emergence of the world market. The rapid flow of technology and the means of production around the globe and the clear trend for many companies to gear their strategies and management attitudes to the global market all point to the emergence of new global corporate enterprises. Indeed, our company, SmithKline Beecham, is a prototype of the company you describe.

But I object to the term stateless in describing companies such as ours. The dictionary describes stateless as meaning "without political community." The new global companies—I prefer the term transnational companies—are not "untethered from their home countries." The essence of the concept, and increasingly the practice, is to be "tethered"—in more than one country. If tethered means fully accountable to national laws and security regulations, then SmithKline Beecham, with nearly equal share ownership in Britain and the U. S., is certainly tethered in both countries.

With respect to "multiple identities," most of the companies you mention—Electrolux, Colgate-Palmolive, Honda, IBM, etc.—work very hard to establish one strong global identity. In fact, most of them work hard to establish a single identity worldwide for major products or brands, from mainframe computers to toothpastes.

As our corporations become globalized, we assume more responsibility, not less. In the process, we help to define the world market and become a major force for global interdependence, wealth creation, and higher and increasingly common standards for the quality of life.

Henry Wendt
Chairman
SmithKline Beecham
Philadelphia

Letters to the Editor should be sent to Readers Report, Business Week, 1221 Avenue of the Americas, New York, N. Y. 10020. Fax: (212) 512-4464, Telex: 12-7960, Intl. 4998204. All letters must include an address and daytime and evening telephone numbers. We reserve the right to edit letters for clarity and space.

This announcement is neither an offer to sell nor a solicitation of an offer to buy any of these securities. The offering is made only by the Prospectus Supplement and the related Prospectus.

New Issues

$600,000,000

Georgia-Pacific Corporation

$300,000,000

10% Credit Sensitive Notes Due June 15, 1997

Interest payable June 15 and December 15

Price 100%

Plus accrued interest, if any, from June 13, 1990

$300,000,000

10.10% Credit Sensitive Debentures Due June 15, 2002

Interest payable June 15 and December 15

Price 99.937%

Plus accrued interest, if any, from June 13, 1990

Copies of the Prospectus Supplement and the related Prospectus may be obtained in any State in which this announcement is circulated from only such of the Underwriters, including the undersigned, as may lawfully offer these securities in such State.

Bear, Stearns & Co. Inc.

Goldman, Sachs & Co.

Salomon Brothers Inc

Commerzbank Capital Markets Corporation **The First Boston Corporation**

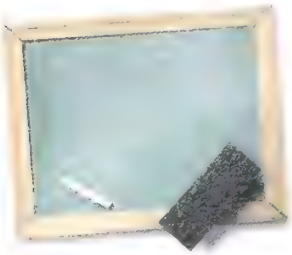
Dillon, Read & Co. Inc. **Merrill Lynch Capital Markets**

PaineWebber Incorporated **Shearson Lehman Hutton Inc.** **UBS Securities Inc.**

June 1990

Why Compaq will never buil

The way we see it, the so-so, the pretty good and the just plain average are things for someone else. Not for us. And most certainly not for you.



Before creating anything, we start with a clean slate, and talk to personal computer users like you.

That's the reason why every COMPAQ personal computer product has been designed to deliver on a simple promise: to simply work better. This approach is what makes our high-performance PCs different from all others.

Working better applies to absolutely everything we do.

It starts with you. Before we design our products, we sit down and talk with computer users like you. To see what you want. And what you need.

Then we take these ideas and combine them with the latest technology and our own innovative thinking.

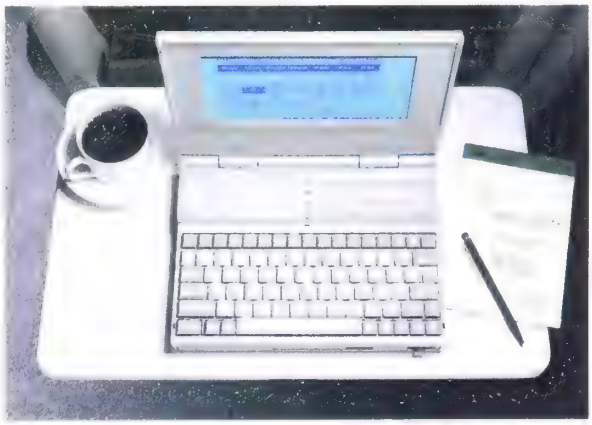
The result is a line of PCs with the performance for whatever you do. Performance that comes from more than just the processor. It includes features like high-speed disk drives and VGA graphics. Room to customize with the thousands of available expansion cards and peripherals. And the compatibility to work with the best of industry-standard technology.

This attention to detail is one reason why our PCs consistently earn the highest marks for quality from computer experts. And unsurpassed marks for satisfaction from PC users.

COMPAQ PCs earn an impressive number of industry awards. But it's what you can do with our PCs that's really impressive.

A powerful example of this thinking is the COMPAQ SYSTEMPRO PC System. It brings an unprecedented combination of performance and expandability to connected environments.

Another example is smaller, but just as impressive. The COMPAQ LTE/286 and COMPAQ LTE laptop PCs fit the capabilities of a desktop into an 8½-by-11-inch package.



COMPAQ personal computers are designed to fit where you work. Whether you're on the 35th floor overlooking Manhattan or at 35,000 feet somewhere over the Rockies.

a PC that simply works OK.

's why *Business Week*, *FORTUNE* and
ther publications named them among the
est products of the year in 1989.

Our approach means you'll be able to find the ideal PC, for whatever you're doing. From simple word processing to complex

No matter what you do, you'll find there's a COMPAQ PC system, desktop, portable or laptop that will help you work even better.

You'll find better ideas inside each and
very COMPAQ personal computer.

COMPAQ 486, 386, 386SX and 286 products are designed to deliver the high-performance difference.

ery COMPAQ product is meticulously designed. Ideas that don't measure up will wind up here, not in your office.

Our rugged laptops and portables let
ou work on the road, without compro-
ise. And both our desktops and systems
elp you bring more power to more people.

Compaq Computer Corporation. All rights reserved.

financial analysis, database management and computer-aided design.

All told, COMPAQ PCs offer the difference between simply working OK and simply working better.

A worldwide network of Authorized Dealers is ready and waiting to help you.

For more information and the location of an Authorized COMPAQ Computer Dealer, call 1-800-231-0900, Operator 117. In Canada, 1-800-263-5868, Operator 117.

COMPAQ

It simply works better.

SCALE AND SCOPE: THE DYNAMICS OF INDUSTRIAL CAPITALISM
Alfred D. Chandler Jr.
Harvard/Belknap Press • 860pp • $35

CORPORATE GIANTS: THE ORIGIN OF THE SPECIES

CHANDLER COMPARES SUCCESSFUL COMPANIES IN THE U.S., BRITAIN, AND GERMANY

In the history of business, B. C. stands for Before Chandler. Over the past several decades, Alfred D. Chandler Jr. of Harvard business school has brought unprecedented rigor and sophistication to the study of the corporation. In so doing, he has profoundly shaped our understanding of that institution's role in modern capitalism.

Early in his career, Professor Chandler helped Alfred P. Sloan Jr., GM's legendary chairman, write *My Years with General Motors*, then published in-depth studies of Du Pont, Sears, and other dominant companies. His 1977 *The Visible Hand*, a study of the emergence of the large American corporation from the 1850s to the 1920s, won a Pulitzer. The book described the changes wrought by the advent of professional management.

The 71-year-old professor's latest work, *Scale and Scope: The Dynamics of Industrial Capitalism*, is his most ambitious yet. Chandler compares and contrasts the growth of the 200 largest companies in each of three industrial powerhouses—the U. S., Britain, and Germany—from the 1880s through the 1940s, searching for the common characteristics of successful corporations.

Like *The Visible Hand*, *Scale and Scope* begins in the latter half of the 19th century, when a new form of capitalism developed in the U. S. and Europe. Its core institution was the giant enterprise, exemplified by America's Du Pont Co. and Germany's Siemens. The rise of these huge companies coincided with that of a new breed of economic man: the professional manager. *Scale and Scope* continues Chandler's analysis of what happened when the visible hand of management replaced "the invisible hand" of the market as the force driving corporate organization and strategy.

According to Chandler, capitalism took a different form in each country. In the U. S., it was "managerial capitalism." Companies run by managers with little ownership stake competed fiercely for markets and products. In Britain, it was "personal capitalism": Owners continued to manage their companies. In Germany, the rule was "cooperative capitalism." Professional managers were in charge, but companies, often at the urging of powerful financiers, divvied up markets and profits among themselves.

Regardless of the country and type of capitalism, Chandler finds, successful companies had in common their investment in three areas: management, production processes, and distribution techniques. Often, the first companies in a nation to make and sustain these investments grew to dominate their industry domestically and shared markets with only a few similar corporations globally. The U. S. tire industry, for example, was ruled by Firestone, Goodyear, Goodrich, and U. S. Rubber, which competed with Britain's Dunlop, France's Michelin, Germany's Continental, and Italy's Pirelli.

Chandler offers the cautionary tale of Sir William Mather, head of Mather & Platt Ltd., an electrical manufacturer and one of Britain's leading industrialists. Mather and Germany's Emil Rathenau, head of AEG, acquired Thomas Edison's electrical patents at about the same time. Rathenau invested heavily and built a behemoth that competed with Westinghouse, General Electric, and Siemens. Mather's company, by contrast, became only a minor producer despite its rich market, highly skilled workers, and eager investors. Mather didn't believe extensive investments in marketing, management, and manufacturing were necessary. No wonder much of London's subway system was equipped by GE.

Chandler's achievement in synthesizing 600 corporate histories in three nations is impressive. It also makes for a difficult, exhausting read. The weight of carefully layered fact on fact is overwhelming, and sprightly language is often sacrificed for leaden detail. *Scale and Scope* is a very dense 628 pages—860 with the appendix and footnotes.

But the book speaks to all the major debates swirling around Corporate America—including those over shareholder value, mergers and acquisitions, and global competitiveness. What it says will upset some people's pet theories. Wall Street mavens and economists of most stripes, for example, argue that what ails U. S. companies is that the managers running them aren't owners. But Chandler shows that America's industrial triumph from the 1880s to the 1940s depended on the separation of ownership and control. As a group, managers invested to assure their companies' long-term profit and growth. By contrast, Britain's owner-managers seem to have been more concerned with providing themselves with a steady cash flow. Britain declined in part because of a failure to invest long and heavily.

Unfortunately, Chandler, the careful historian, is hesitant to extrapolate from his knowledge of the past to make bold statements about present trends. Even his summary chapter, a tantalizing look at the decline of Big Business in America after a brief postwar hegemony, is overcautious. Chandler is clearly leaving interpretation to others. Given *Scale and Scope*'s wealth of timely and relevant data, no doubt many scholars and commentators will rush to fill that gap.

BY CHRISTOPHER FARRELL

Associate Economics Editor Farrell is a history buff.

GUARANTEED
YEAR IN, YEAR OUT
YEAR IN, YEAR OUT
YEAR IN, YEAR OUT

Repetitive, yes. Irrelevant, no.

Because the more you know about your investment in a cellular telephone, the better you'll feel about your decision to buy. Which is why the Fujitsu COMMANDER® XL puts a guarantee of reliability up front... in a three-year warranty.

Smart, sleek design. State-of-the-art features like alpha-numeric memory, speed-dialing and 911 emergency override. And a written commitment to reliability that's backed by Fujitsu, a world leader in telecommunications.

Fujitsu COMMANDER® cellular mobile telephones. Quality you can see. Hear. And read in our warranty.

For the name of the COMMANDER® XL dealer nearest you, write Fujitsu America, Inc., 1111 Digital Drive, Richardson, TX 75081. Or call 1-214-699-9341 today.

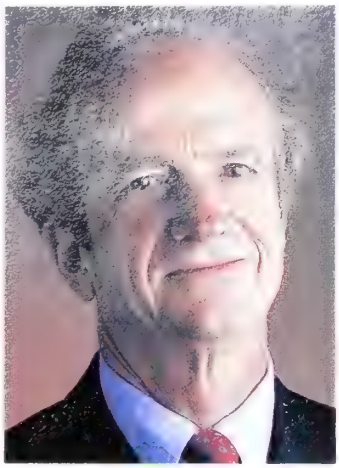
COMMANDER® is a registered trademark of Fujitsu America, Inc.

FUJITSU

The global computer & communications company.

AS ROLE MODELS GO, SWEDEN IS SUSPECT

BY GARY S. BECKER



Those looking for a middle road between communism and capitalism, take note: Sweden's taxes take over half of national income, and its policies discourage hard work and skill-building. The result: Stalled economic growth

As the newly emerging democracies in Central Europe prepare to throw off state ownership and central planning, some reform-minded leaders are casting about for a "third way." They are looking for an alternative to what they see as the excessive materialism of market-based economies. The potential role model usually invoked is Sweden.

I believe this would be a serious mistake. True, Sweden has long been seen as a wealthy market economy that nevertheless has little inequality and a network of government programs to protect the weak and poor. I can remember being greatly impressed as a teenager by journalist Marquis Child's popular 1936 book *Sweden: The Middle Way*, which made Sweden sound like paradise. Unfortunately, if it ever was a paradise, it seems to have fallen from grace.

The good habits and deep respect for the work ethic slowly built up in Sweden during the previous century have been gradually eroded by the adverse effect on incentives of 25 years of expanded taxes and regulations. Unfortunately, the new governments in Eastern Europe don't have such a cushion, for 45 years of Communist mismanagement have already eroded habits of work discipline in those countries.

In the century preceding 1960, Sweden's performance was exceptional for a country with fewer than 9 million people. It had one of the fastest-expanding economies and relatively little inequality. Swedish companies such as Asea, Volvo, and Ericsson became major players in international business.

QUICK FINNISH. But during the past 15 years, Sweden's growth in per-capita income has been far less than the Organization for Economic Cooperation & Development average. Twenty years ago, many Finnish workers were drawn to Sweden by its much-higher incomes. Now, most of them have returned home, since Finland's per-capita income has been growing fast and may well surpass Sweden's before the century is over.

I believe that Sweden's performance has deteriorated mainly because of the rapid expansion in regulations and in the share of national income spent by central and local governments. This share rose from about 45% during the early 1960s—only moderately above the average in other market economies—to 67% in 1986, which is the highest in the Western world. By contrast, the Finnish government continues to spend little more than 40% of its national income.

The huge government sector in Sweden imposes an enormous burden on taxpayers. Until a couple of years ago, the marginal income tax rate exceeded 60% for most middle-class families, and it was over 80% for many of them. Swedish voters have begun to recognize that tax rates are too high: Political pressure forced the government to support legislation that reduces the top marginal income tax rate to 50% by 1991, and has lowered the share of income spent by the government to about 60%.

During the 1970s and '80s, Sweden introduced very generous retirement and health benefits, lengthy paid leaves after workers became parents, liberal rules on taking days off when one is too sick to come to work, and many other types of transfer payments. In addition, union and government policies sharply lowered differences in pay by education level, job experience, and other measures of worker productivity.

LOTS OF LEAVE. Under these conditions, work effort and investments in human capital are bound to suffer. The average Swedish worker was out sick for almost a month in 1988—and received full salary for all sick days. On a typical day, almost one in four employees is absent from work because of reported illness, parental responsibilities, study leave, or any of the many other reasons that entitle a worker to stay home. Swedish women are much less likely than American women to work full time, and Swedish men work many fewer hours per year than American men. Why put in a lot of effort at work when it is possible to get paid for staying home, when better jobs don't have much higher wages, and when taxes absorb practically all of any increase in pay?

On a recent trip to Sweden, I encountered a good example of these effects on incentives. Graduate students in economics take an average of 8 to 10 years to finish their doctoral studies, compared with 4 to 5 years in the U. S. The reason: The Swedish equivalent of an assistant professor earns only a little more after taxes than graduate students do with their generous government fellowships. In the U. S., once economics students receive a doctorate and take a full-time job, their incomes more than triple.

The Swedish government taxes new businesses heavily, but it provides many loopholes for large companies. This explains why some large companies continue to do well in the international market. But Sweden can't get back on the road to rapid economic growth as long as taxes take more than half of national income and the country retains the many regulations and programs that discourage hard work and acquisition of skills.

Present-day Sweden is not a good role model for countries that want to greatly improve the living standard of their average citizens. ▣

GARY S. BECKER IS UNIVERSITY PROFESSOR OF ECONOMICS AND SOCIOLOGY AT THE UNIVERSITY OF CHICAGO

MICHAEL L. ABRAMSON

"We have 1,900 reasons to rely on UDS modems"

Networking some 1,900 paint and decorating stores nationwide requires bold thinking; the broad geographic spread generates an awesome task for the Sherwin-Williams information network.

Sales, inventory, personnel and other operating data must move between each store and the corporate mainframe on a timely basis. Concurrent on-line credit card verification is another desirable capability.

Sync-Up™ 201/212 modems, by UDS, are the Sherwin-Williams solution.

These devices are tailor-made for Sherwin-Williams' divided communications responsibility — their low-speed (1200 bps) channel can be used for credit card verification, while operating data travel via the modems' higher-speed (2400 bps) circuit.

Versatility, reliability, economy. These are the reasons why Sherwin-Williams chose UDS. If you have similar system needs, follow the Sherwin-Williams example. Contact UDS, 5000 Bradford Drive, Huntsville, AL 35805-1993. Telephone 205/430-8000; FAX 205/430-8926.

—Bob Mulhern,
Manager Systems Integration
Paint Stores Group

SHERWIN WILLIAMS

UDS

MOTOROLA

SOME OF THE ALTERNATIVES FOR REDUCING AUTOMOBILE EMISSIONS AREN'T VERY PRACTICAL FOR AMERICA.

It's impossible to imagine an America without cars. But it is possible to imagine a further reduction in the pollution cars cause. The automotive industry has already proven the effectiveness of catalytic converters and other emission controls. Clearly though, the work is far from over. And at Ethyl Corporation, we have a major way to help. That's why we're asking the Environmental Protection Agency to approve our fuel additive HiTEC® 3000 Performance Additive for use in gasoline. A recently completed test program, involving more than 3 million miles of driving, conclusively proves that HiTEC 3000 can significantly reduce overall tailpipe emissions. Most notable is a 20 percent decrease in nitrogen oxides, a key component of urban smog. HiTEC 3000 also provides refiners with a way to reduce the escape of potentially toxic vapors at gas pumps. And it does all of this in a way that boosts the octane rating of gasoline and extends fuel efficiency. In fact, if HiTEC 3000 were approved for use in America's 141 million automobiles, the country could save more crude oil per year than is currently being purchased and stored annually in the Strategic Petroleum Reserve. If you'd like to know what you can do to support approval of HiTEC 3000, write Ethyl Corporation, Corporate Communications Department, P.O. Box 2189, Richmond, VA 23217. The problem of automobile emissions is a complex one that no single party can solve. To develop a program that works for America, we all have to do our part—the makers of automobiles, the makers of fuels, and the makers of laws. Ethyl®

KATHLEEN MADIGAN

ETROIT'S BIGGEST ROBLEM MAY BE IMPLE STICKER SHOCK

etroit is using a flock of marketing ideas to try to move cars out of owrooms. But with all the hoopla out rebates, low financing rates, air gs, and surveys of consumer satisfacn, sales of new, domestically made rs seem stalled at an annual rate of out 6.5 million. The problem, says wrence A. Kudlow, chief economist at ar, Stearns & Co., may be that new rs just cost too much.

While carmakers are doling out generes cash rebates, Kudlow suspects that alers are boosting their own profit argins by adding such expenses as inrest and inventory costs onto the retail ce of their cars. That's one reason, he ys, why wholesale costs of new cars d small trucks have fallen slightly er the past year, while retail prices e up 1.5%. The result: The average w car now costs about $16,300. That's uivalent to more than half of the avere family's yearly salary.

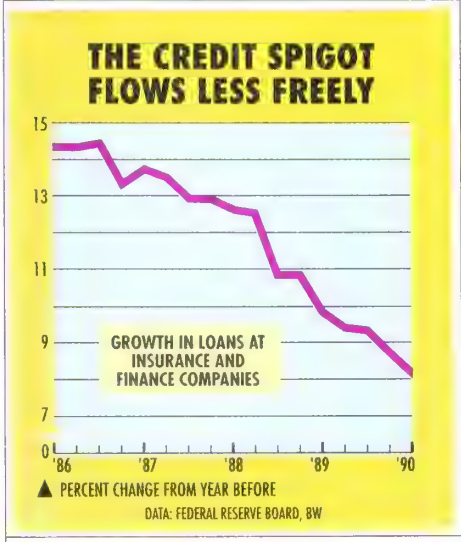
"It may be that a lot of Big Three alers have taken advantage of the ge production and inventory declines try and raise margins and allow the to makers to take the lumps on earngs," Kudlow says. To boost demand, advises auto makers to hold the line costs and improve their pricing praces with dealers. In that way, consums can better reap the benefits of Deoit's incentives largesse.

HE LENDING WELL EEPS GROWING RIER AND DRIER

orrowers already know that loans are hard to get at their local bank savings and loan. But loan-seekers ay also be disappointed if they go hat hand to such other big lending institons as insurers and finance companies. Nancy R. Lazar, an economist at C. J. awrence, Morgan Grenfell Inc., points t that growth in loans by insurance d finance companies—which together count for more than a quarter of all ivate lending—has slowed. She calcutes that in the first quarter, such loans se by 8.1% from a year earlier. That's own from the 9.8% pace of last year d from 12.6% in early 1988 (chart).

The loan portfolios for both industries ave been hit by the same problems that have squashed the growth of lending at commercial banks: a rise in defaults in real estate borrowings and a deterioration in their junk-bond holdings. In addition, tighter credit standards have cut into some borrowers' demand for loans.

"It's another case of weaning this economy off debt," says Lazar. But, she warns, a further slowdown in lending by these institutions will hurt the already ailing construction and durable-goods sectors. Builders will feel the pain from the slower growth in loans from insurance companies because insurers are the second-biggest holders of commercial mortgages, after banks. And the lending slowdown at finance companies is in part another sign of the weak demand for cars and other durable goods that are usually financed by consumer loans.



THIS INDEX SAYS THE FED SHOULD HOLD TIGHT

To ease or not to ease? That is the question once again facing policymakers at the Federal Reserve Board when they meet on July 2. But if the Fed's primary objective remains pushing down inflation, economists at Fuji Securities Inc. caution that now may be the wrong time to let up on interest rates, even with a sluggish economy.

Fuji's Samuel D. Kahan and Frederick W. Sturm have developed an inflation monitor that, they say, "has the uncanny ability to foretell turning points in the inflation rate" about six months down the road. In mid-1989, for example, growth in the index started to fall and then flattened out at the beginning of this year. In turn, the annual rate of rise in consumer prices has decelerated from 5.2% in January to 4.4% in May.

To calculate the index, Kahan and Sturm round up the usual suspects, including the exchange rate of the dollar, commodity prices, and growth in the monetary base. But they also add in changes in capacity utilization, the length of delivery times for supplies, and the percentage of the adult population that holds jobs. Sturm explains that these measures of "production bottlenecks" identify material or labor shortages that could push up prices later on.

For this year, says Sturm, "the index is telling us that the Fed's concern about persistent inflation is justified." In the last three months, the index has stopped falling, and estimates for June and July show an uptick in growth. That means consumer prices should continue to rise at the current annual rate of about 4.5% and maybe increase slightly by yearend.

But the outlook improves later on. That's because "production bottlenecks are loosening up at an increasingly fast pace," Sturm says. And with more labor and capacity available, companies won't have to boost prices as much in 1991.

WHAT U.S. CITY WAS '89's HIGH ROLLER? VEGAS, OF COURSE

Not all jobs are created equal. That's why Charles Renfro, chief economist at Alphametrics Corp. in Bala Cynwyd, Pa., argues that it's inaccurate to look solely at job growth to measure the economic health of a city or state. "A new manufacturing job generates more activity than a new retail sales job," Renfro says, not only because factory wages are usually higher than store pay but also because manufactured goods are more likely to be shipped out of a city, bringing more money into the area.

Instead, Renfro uses changes in personal income and business revenues plus the mix of new jobs to calculate performance indexes for the 75 largest U. S. metropolitan areas. Not surprisingly, the three worst performers last year were in depressed Massachusetts. The Boston, Worcester, and Salem economies all contracted in 1989. Also near the bottom was New York City, which ranked 69th.

The unexpected winner was Las Vegas, where a jump in casino revenues and a construction boom boosted growth by a strong 11.3% last year. But "such growth is not sustainable, because Las Vegas casinos have done all their big building," Renfro warns. So for 1990, he expects the No. 1 spot to be filled by either Seattle, home to Boeing Co., or Orlando, where construction activity and tourism are still on the upswing. ▣

ALBERTO MENA, BW

Parking is such sweet sorrow.

When you're behind the wheel of a Ford Thunderbird SC, even the long way home never seems quite long enough.

The supercharged Thunderbird SC boasts one of the most powerful production engines made in America: a 3.8 liter EFI V-6 that rates a formidable 210 horsepower and 315 foot-pounds of torque.

To complement all that power there's a 5-speed manual overdrive transmission, "speed-sensitive" power steering, automatic ride control suspension and four-wheel disc anti-lock brakes.

And this Thunderbird's interior is as impressive as its sleek exterior. Articulated bucket seats with power lumbar and side bolster supports are standard. So is a

Buckle up—together we can save lives.

formance analog instrument cluster, air
nditioning and power windows. There's
n an available compact disc player and a
e speaker JBL sound system.
Ford Thunderbird SC. Parking is such
eet sorrow.

st-built American cars.
The best-built American cars are built by Ford. This is based on an average of consumer-reported problems in a series of surveys of all Ford and competitive '81-'89 models designed and built in North America. At Ford, "Quality is Job 1."

Ford Thunderbird SC

Have you driven a Ford...lately?

CONNECTICUT

THE BETTER BUSINESS ADDRESS

Connecticut is Better for Business!
Business leaders choose to do business in Connecticut for a good reason. Why? Connecticut extends the red carpet and keeps it rolled out. State agencies and funds facilitate every business step from licensing to loans, training to technical services.

Connecticut. Look at the record. Companies doing business in Connecticut discover that it's much more than just a pretty place—it's the prime address for doing better business.

For more information on
Business Week's Special Advertising Section,
contact:
Tim DiCarlo, Account Manager
at 203-968-7121
Barbara J. Daly, Marketing Manager
at 212-512-6664

Issue Date: October 29, 1990
Closing Date: September 17, 1990
North America Edition

BusinessWeek
There is no second place.

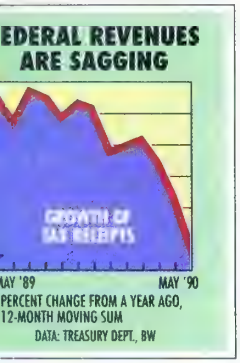
Y 9, 1990

BY JAMES C. COOPER AND KATHLEEN MADIGAN

IEW TAXES COULDN'T COME AT WORSE TIME FOR THE ECONOMY

ecession scares have come and gone throughout this 7½-year expansion. Downturns have rolled in and out of various economic sectors and geo-aphic regions, never quite adding up to the real thing. is time, it's serious. Weakness is spreading to consum-—the one sector that the expansion can ill afford to e. And Washington's tax fight threatens to make tters worse (page 24).

The day of reckoning on the federal deficit has finally ived. The White House now admits that the budget ficit for the 1990 fiscal year ending on Sept. 30 will fall the range of $184 billion to $206 billion. Unless there is udget deal with Congress, the deficit would swell to 00 billion to $227 billion in 1991. As a result, President sh's lips said the T-word on June 26, and Congress is ely to pitch in with some spending cuts.



But the cost to the economy of cleaning up the mess will be painful—especially for consumers. Higher federal taxes will leave them with less cash for spending at a time when many states are already raising taxes. And tax hikes will hit businesses just as corporate profits are falling. That threatens capital spending. And depending on which items are targeted, high- taxes will lift business costs. That will erode interna-nal competitiveness as companies try to cover the reases with higher prices.

Spending cuts will also hurt. Many regions are already arting to reel from defense cutbacks. Public building ojects—one of the few remaining bright spots in an herwise gloomy construction outlook—are another ely candidate for cuts. In addition, a possible freeze in titlement programs will further depress consumer ending, since transfer payments account for 14% of rsonal income.

WILL THE FED HELP EASE THE PAIN?

The budget numbers for May highlighted the growing need for action. They showed that the 1990 deficit is most likely to come in at the high end of the Adminis-ation's range. Outlays exceeded receipts by $42.6 bil-n, which dwarfs the $25.4 billion gap recorded in May, 89. And a weaker economy has cut into tax receipts om personal income and corporate earnings (chart). ven excluding the funds needed for the savings-and-an bailout, outlays have sped up.

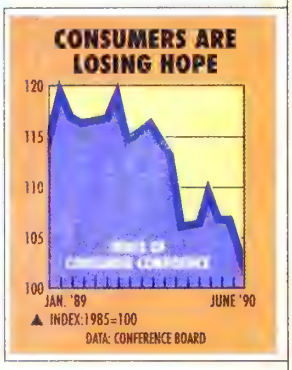
A quick deal between the Administration and Congress that is also credible in the financial markets will be important for the expansion. A serious budget package that avoids the smoke-and-mirror tactics of the past would clear the way for lower long-term interest rates. Only then will the Federal Reserve Board be willing to ease monetary policy in order to help offset the loss of economic activity from higher taxes and spending cuts.

But if history is any guide, that might be too much to hope for. And without help from the Fed, Washington will be taking stimulus out of the economy at the very time when the expansion is in its most vulnerable period.

SHOPPERS BRACE FOR A BUST

Consumers are the biggest reason for concern. They contribute two-thirds of gross national product, and they have been this expansion's main support during some tough times. In recent months, however, there are signs that consumers are cracking. They are already shouldering a record load of debt, and high interest rates are eating into demand for cars, homes, and other credit purchases. Now, slower growth in jobs and wages is starting to hit incomes. And optimism about the future is fading. If consumers are finally throwing in the towel, the economy will be in a recession by yearend.

The signs look ominous. Consumer confidence plunged 4.5% in June, to the lowest level since November, 1987—immediately following the stock market crash (chart). According to the Conference Board, the drop primarily reflected growing concern about jobs.



As households look ahead, they don't see much to rest their faith on: In addition to the prospect of higher taxes and the Fed's stingy credit policy, the S&L crisis is getting worse. The government's index of leading indicators rose 0.8% in May, but it is barely above where it was a year ago. And home prices are weakening across a broad swath of the nation. The result: Consumers are saving more and spending less.

Consumer spending already looks pretty weak. Outlays fell 0.3% in May, after adjusting for price changes. The decline was concentrated in goods as opposed to services, where spending continued to rise. Real outlays for goods fell 1%, to the lowest level in more than a year and a half. Service spending, about half of all outlays, rose 0.3%, but most services are nondiscretionary

ERIC HOFFMANN/BW

items—rent, mortgage, utilities, energy, and medical care—over which consumers have little control.

The June numbers on consumer spending didn't start out much better. The annual selling rate of domestically made cars averaged 6.6 million in the first 20 days of the month—6.3 million in the first 10 days and 6.8 million in the second 10. That's no better than the May level. In the second quarter, growth in real consumer spending is likely to end up close to zero.

INCOME GROWTH IS SLIPPING

Slower income growth is a big part of the problem. During the first five months of the year, consumers' real disposable income—earnings adjusted for inflation and taxes—have risen at an annual rate of only 1%. That's down sharply from 3.8% during all of 1989. The slowdown mainly reflects the weakest four-month stretch of growth in private employment during this expansion.

What's more, consumers are salting away a much larger portion of their earnings. In May, households saved 6.2% of their disposable income. During the past three months, the saving rate has averaged 6.1%, the highest for any three-month period in about 5½ years.

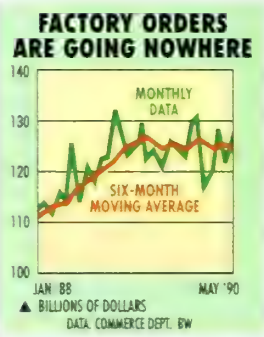
The slowdown in incomes, combined with more saving, leaves consumers precious few dollars for discretionary purchases, which tend to be goods such as autos, furniture, and clothing. And that's one reason why manufacturing is in for a bumpy ride in the second half.

DEMAND FOR GOODS CONTINUES TO DIVE

In fact, factories will have to cope with weakening demand across the board. The Commerce Dept.'s report on second-quarter GNP, due on July 27, will drive that point home. The way the numbers are shaping up, overall demand will be hard-pressed to show any gain at all. And inventory growth will account for virtually all of the quarter's advance in real GNP.

That puts this spring's budding recovery in manufacturing in jeopardy. The faster pace of production in recent months flies in the face of the already stagnant trend in new orders (chart). Sluggish demand in the second half threatens yet another adjustment of factory inventories—with more cutbacks in output and jobs.

The latest numbers on orders show almost no new strength going into the summer. Orders received by manufacturers of durable goods rose 3.9% in May, to $128.2 billion, but that followed a 4.2% drop in April. Orders have been exceptionally volatile, reflecting big swings in aircraft and autos. In May, transportation equipment accounted for two-thirds of the month's gain.



Looking over a longer period, the trend in orders has been flat for a year, and it shows no sign of picking up. Except for the strength in aircraft, the backlog of unfilled orders continues to decline. That will provide less of a cushion for future output.

Orders for capital goods during the past year look similarly listless. Moreover, in the first two months of the second quarter, shipments of capital goods were below their first-quarter mark. That means that in the second quarter, capital spending—in addition to consumer spending—will be weak.

Exports are the only real source of strength for manufacturing—and the economy. But even here, foreign demand has slowed markedly from a year ago, and besides, exports are only 14% of GNP.

In the past, the economy has always been able to lean on one or two sectors for support during shaky periods. But this time, there is little hope on the horizon for any new strength. The prospect of new taxes dims the outlook even more. And that could be the straw that breaks the expansion's back.

THE WEEK AHEAD

NAPM SURVEY

Monday, July 2, 10 a.m.

According to a survey by MMS International, a division of McGraw-Hill Inc., most economists expect that the business activity index for June compiled by the National Association of Purchasing Management will probably be little changed from its May level of 50.7%. The NAPM questions its members on their company's levels of employment, inventories, production, orders, delivery times, and prices to measure activity in manufacturing industries. A reading above 50% indicates that the factory sector is expanding. But in the second quarter, the NAPM index didn't rise much above the halfway mark, suggesting that manufacturing's recent rebound is still pretty tenuous.

CONSTRUCTION SPENDING

Monday, July 2, 10 a.m.

Construction spending probably fell by about 0.8% in May—about the same loss as the 0.7% drops in March and April. The May decline is indicated by another reduction in construction payrolls for that month as well as the continued slump in homebuilding.

FACTORY INVENTORIES

Tuesday, July 3, 10 a.m.

Inventories at manufacturers likely rose by about 0.4% in May, after edging up 0.1% in April. Most of the buildup was probably in the auto industry, which boosted production in May. Most economists expect that factory orders rose by 2.8% in May, after falling 2.3% in April. Durable-goods producers have already reported a 3.9% jump in their orders.

EMPLOYMENT

Friday, July 6, 8:30 a.m.

The MMS consensus is that nonfarm payrolls rose by about 100,000 in June, after growing by 164,000 in May. That would bring the total number of jobs added in the second quarter to less than 250,000—the lowest gain in four years. Economists also expect that factory jobs fell by another 7,000 last month, after declining by 35,000 in May. The unemployment rate for June was likely unchanged from May's level of 5.3%.

IF YOU'RE INTERESTED IN A BUSINESS JET, THE U.S. AIR FORCE HAS DONE YOUR SHOPPING FOR YOU.

The United States Air Force recently completed rigorous and lengthy evaluations of most of America's "off-the-shelf" light business jets.

Their evaluations were particularly demanding, because they were developing the training program that every new Air Force transport or tanker pilot will go through for the next 20 years.

The number of jets they needed? Over 200.

The jets they're buying? The Beechjet 400T, a derivative of our 400A corporate jet.

The Beechjet 400A is capable of speeds up to 538 mph. With advanced state-of-the-art digital avionics that are the equal of those on jets costing millions more.

Its completely redesigned interior gives you more cabin volume than any jet in its class. With flexible seating arrangements for up to 9 and full double-club seating.

The Beechjet's "squared-oval" cabin also gives you more headroom than the competitor's circular design.

And finally, the bottom line. Beechcraft's traditional ruggedness and durability offered the Air Force the lowest life-cycle cost. Which is important to someone buying over 200 airplanes.

Or even someone just buying one.

Beechcraft Library.

Beechcraft has the answers to all your questions about business aviation.

- ☐ How to Justify an Airplane
- ☐ How to Choose an Airplane
- ☐ When to Trade Your Airplane
- ☐ Warranty Information
- ☐ Leasing and Financing
- ☐ Tax Benefits of Aircraft Ownership
- ☐ Videotape and Printed Brochures

If you'd like more information, call our Beechcraft Library. We can have answers for you the same day. Phone 1-800-835-7767 Ext. 979 (in the U.S. and Canada).

Beechcraft. Where new ideas take flight.

Beechcraft
A **Raytheon** Company

JULY 9, 1990

THEM'S FIGHTIN' WORDS, GEORGE

BUT BUSH'S ABOUT-FACE ON TAXES COULD BREAK THE BUDGET STALEMATE

George Bush finally said it.

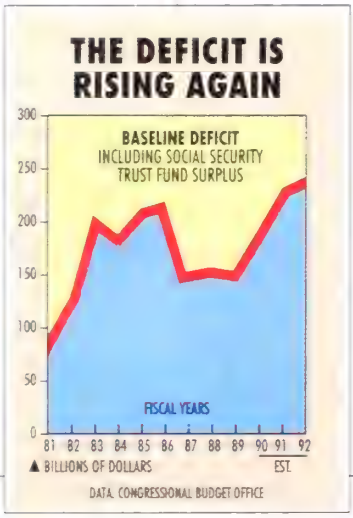
After 17 months in office, the President acknowledged on June 26 that he cannot break the federal government's budget paralysis without a tax increase. The words, which came in a terse, four-sentence White House statement, set a desultory Washington on its ear. Democrats and Republican deficit-fighters were exultant. Supply-side Republicans felt angry and betrayed.

By opening a gap in his stonewall opposition to revenue hikes, Bush has set off a major budget battle in which both spending cuts and tax increases will be bitterly contested along partisan, regional, and class lines. Westerners will oppose higher gasoline taxes, while Northeasterners will fight levies on oil and coal. Wall Streeters will battle taxes on securities transactions, while the elderly will take to the barricades to defend Social Security and medicare. Bush will try to protect the Pentagon by shifting the burden to domestic programs. Democrats will seek to restructure the tax code to make it more "fair" to the middle class, while the White House will demand a cut in the capital-gains rate.

WAKING THE DEAD. Bush's stunning switch breathed new life into all-but-comatose White House-congressional budget talks, which have been limping along since mid-May. And the President probably ensured that some sort of budget deal will be crafted by this fall. Yet it's still far from clear whether either side will do what it takes to produce a serious, multiyear deficit-reduction package. Says Stephen E. Bell, a former top GOP aide on the Senate Budget Committee: "Folks who have been around this town a long time think it has got a long way to go."

The Administration and Congress seem to agree on these goals: knocking about $50 billion off the expected fiscal 1991 deficit and shooting for a balanced budget by 1995. That would require slashing expected deficits by about $500 billion over five years. All this is to be accomplished by a group of lawmakers and Administration officials who have never been able to cut the deficit by more than $25 billion in one year.

But in the curious world of Washington, things have gotten so bad that there's reason



It is clear to me that both the size of the deficit problem and the need for a package that can be enacted require all of the following: entitlement and mandatory program reform; tax revenue increases; growth incentives; discretionary spending reductions; orderly reductions in defense expenditures; and budget process reform...

optimism. Tax revenues that were lower than anticipated, as well as the ggering cost of the savings and loan out, have sent the deficit back into fiscal stratosphere (chart).

'he Gramm-Rudman Act requires omatic, across-the-board spending retions if the 1991 deftops $74 billion. thout changes in nding and taxes, the ngressional Budget fice (CBO) reckons t year's deficit could $232 billion. Autotic spending reducs of that size would age government options and deliver a y blow to the econo. "There is a fiscal sis," says Senator e V. Domenici (R-M.), the senior Bud- Committee Republi. "We know we've to fix the deficit."

NICKED.' The gruene numbers helped easury Secretary holas F. Brady and dget Director Rich- G. Darman convince sh that he had to get deficit talks back on ck. "Bush allowed nself to be panicked the number-crunch," complains an an- conservative.

'he upcoming ecomic summit (page 28) o prodded Bush. The nerican government's emingly insatiable rrowing needs have come a major bone of contention among the world's major industrialized nations. If the budget talks derailed, says a GOP strategist, "Bush would have been beaten up at the economic summit."

But Bush, ever the incrementalist, did the least required to jump-start the talks. He never said how much taxes would have to be raised. Nor did he say whose taxes would go up.

Administration insiders, however, have privately set their own parameters: No more than $25 billion in new taxes this year. No more than $125 billion in new revenues over five years. And no increases in personal income taxes. They will also demand that a capital-gains tax cut be part of any package. White House officials won't say what their new tax preferences are, but congressional Republicans have said repeatedly that "sin" taxes on cigarettes and alcoholic beverages are at the top of the list (table).

Such a formulation would be unacceptable to Democrats. House Ways & Means Committee Chairman Dan Rostenkowski (D-Ill.) has proposed raising $30 billion in new revenues in fiscal 1991 and nearly $200 billion over five years. While his plan has not been formally endorsed by other Democrats, the magnitude of his tax hikes is close to the wishes of fellow party members.

'AN OBLIGATION.' But the distribution of the hikes may be a more contentious issue than their size. Democrats will insist that a big chunk of the tax increases come from the wealthy. They will demand that any capital-gains tax cut be offset by a hike in the tax rate for the richest families from 28% to 33%. "We have an obligation to look at the regressive tax structure," says Senate Budget Committee Chairman James R. Sasser (D-Tenn.). "We ought to look at those groups who profited from the tax deficit of the 1980s to solve the budget deficit of the 1990s."

Don't expect the Democratic leadership to expose itself to GOP fire by calling for big new taxes. "We've been down this road too many times before," says one senior Democratic congressional aide. "We're not going to get suckered again."

Capitol Hill Republicans are more sharply divided, though a number of Senate Republicans may be willing to swap higher individual rates for a capital-gains cut. But House Republicans, as well as conservative rank and filers, won't go along. "Raising taxes is the worst of all worlds," says Representative Dana Rohrabacher (R-Calif.), "I will not vote for a tax increase."

Bridging the broad philosophical gulf over taxes is just one part of the challenge for the budgeteers. Cutting spending for medicare, Social Security, and farm programs—the so-called entitlements—will be just as tough. Both parties will be extremely reluctant to raise taxes on retirees or cut their benefits. But both sides know they can't get a meaningful plan to reduce the deficit without cutting some aid for the el-

A MENU OF TAX OPTIONS

PROS	ESTIMATED FIVE-YEAR REVENUE BILLIONS OF DOLLARS	CONS
Bush's top priority. Also backed by many Democrats. May increase investment. Gains revenue in first year	Cut top capital-gains rate to 19.5% **-$11.4**	Regressive. Opposed by Democratic leaders. Renews endless debate over long-term revenue effect
Big revenue-raiser. Appeals to environmentalists	New levies on CO_2 emissions **$162.9**	Favors nuclear and hydro power in Northwest and Southeast. Hits Northeast and Midwest hard
Broad-based, also carries 'green' label. Avoids raising income taxes	Raise gasoline tax by 12¢ **$162.9**	Regressive. Hits the West and South. Highway lobby will fight hard
Carries perception of taxing the rich, makes it easier for Democrats to swallow capital-gains cut	Securities transfer tax **$57.7**	Complex. May drive investment offshore. Hits pension funds, which are now tax-exempt
"Sin taxes" seen as way to discourage high-risk activities. Plays to anti-smoking, anti-drinking constituency	Raise taxes on cigarettes and alcohol **$50.9**	Regressive. Hits poor especially hard. Tough sell when compared with capital-gains cut, which benefits rich
Progressive. Taxes those who can most afford it. Backed by most Democrats and many Senate Republicans	Raise top income tax rate to 33% **$41.9**	Flies directly in the face of Bush opposition to income-tax hikes. Critics say penalizes work
Makes elderly, who enjoy big federal benefits, pay a share of deficit reduction, but more progressive than benefit freeze	Tax Social Security benefits **$38.2**	Powerful seniors will resist. Would force Bush to reject his pledge not to touch Social Security. Liberal Democrats also object

DATA BW

derly, who currently receive nearly one-third of all federal spending.

So where will the money come from? Some of it's easy. Both sides are ready to take the cost of the S&L bailout off budget. That would "save" as much as $200 billion over the next five years. They will also exclude surpluses being piled up by the Social Security trust fund from the deficit total. While the net effect is to increase the reported deficit, it gives the summiteers the excuse they need to stretch out the Gramm-Rudman targets into the mid- to late 1990s.

SIMILAR PLANS. Practically and politically, there are only a few ways to cut the deficit by $500 million. Democrat Rostenkowski would get $150 billion from defense, $70 billion from medicare and Social Security, $26 billion from other domestic programs, and $200 billion from new taxes. A plan being readied by Republican Domenici is surprisingly similar. He'd cut defense by about $150 billion, raise taxes by about $120 billion, and cut entitlements by $110 billion. The rest would come from other cuts.

Reducing the budget deficit by $500 billion over five years will prove incredibly painful. It threatens to set off a revolt among Republican backbenchers, who will resist tax hikes, and among liberal Democrats, who will object to spending reductions for the poor.

All that is nothing compared with what the voters will say. A major budget agreement will anger defense contractors, senior citizens, farmers—everybody. Says Stanley E. Collender, a budget analyst with Price Waterhouse & Co.: "All of the solutions to the deficit problem are a lot more painful than the deficit. At least in the near term."

And the payoff might be minuscule. A new CBO study reports that such a $500 billion deal would increase real gross national product by a mere 0.1% in 1991. The net effect would be positive because lower interest rates would offset the drain on the economy caused by higher taxes and lower federal spending.

That doesn't sound like a winner to the average politician. Granted, Administration officials and congressional leaders alike have grown weary of spending the better part of each year haggling over the deficit. But the painful details will make it very hard to accomplish much more than another one-year fix. The best assessment comes from one longtime Democratic congressional staffer: "The President's action guarantees they will reach an agreement that each side says will do the trick. The huge question is: Will they get a truly meaningful agreement?"

By Howard Gleckman, with Paula Dwyer and Douglas Harbrecht, in Washington

COVER STORY

BROKEN PROMISE, DIVIDED PARTY

Despite conservative dismay, a budget deal could pay off politically

In the wake of President Bush's stunning reversal on taxes, Democrats are trying hard not to gloat. When Democratic congressional leaders stepped forward on June 26 to murmur statesmanlike words of support, you couldn't read House Majority Leader Richard A. Gephardt's lips—he was too busy trying to stifle a grin.

But the politician trying hardest of all to contain his emotions is Senate Republican Leader Bob Dole (R-Kan.), the man Bush savaged in the 1988 GOP primaries as a shameless tax-raiser. Now, when Dole offers his take on the President's tax switch, he looks like someone about to burst with rectitude. "We're not going to know if [Bush] has abandoned his 'no new taxes' pledge until we see specifics," Dole says, knowing full well that tax options are now being readied for review by the Hill-White House budget summit. As for those angry conservatives who are calling Bush's rendezvous with reality a crass betrayal, Dole has some curt advice: "Buy some lip balm."

Dole can be forgiven his glee. But the stark fact for President Bush is that, while his tax gamble has won praise from Senate Majority Leader George J. Mitchell (D-Me.) and other leading Democrats, it has opened enormous fissures within Republican ranks. Here's why:

- Conservatives, notably House GOP firebrands, are rebelling over the flip-flop. Right-wingers warn of a symbolic challenge to Bush in 1992. "Some activists say it looks like Mike Dukakis really won the election," fumes one top party operative. "They're wrong. It was Bob Dole and the sky-is-falling wing [of the GOP] that won."
- Republican congressional candidates, who geared their fall campaigns to lambasting "tax-and-spend" Democrats, are furious over Bush's decision to yank away their best issue. Even if the President's ploy produces a big budget accord, most say they'll break with Bush and run as antitax crusaders—risking ridicule from opposition Democrats.
- Even though polls show that few voters expected the no-tax promise to last forever, Bush appears to lack Ronald Reagan's magical ability to pull off a major policy reversal without suffering any harm. "This is going to cost Bush," predicts GOP consultant Kevin Phillips.

GINGRICH: DISPIRITED

MITCHELL: PRAISE FOR BUSH

Right-wingers are warning of a symbolic challenge to Bush in 1992. "Some activists say it looks like Mike Dukakis really won the election," fumes one top party operative

e's beginning to look like he has the l of a chameleon."

n the longer term, Bush's tax switch eatens to further blur the identity of Republican Party. "Anticommunism gone," says Democratic operative hard Moe. "Thanks to the abortion nt, the pro-family issue is gone. And the tax issue is so weakened that hard to put your finger on what a ublican is anymore."

lone of this means that the Great Switcheroo will cause the President evous political damage. To see the is- from the White House's perspective, have to take a peek into the convo- d mind of Budget Director Richard Darman, a prime instigator of the strategy.

rom the start, close Bush advisers 1989 was too soon after the election abandon a major campaign promise. w, the cost looks less forbidding. The sident boasts a 70% public approval ng, and no major Democratic chal- ger has surfaced for 1992. "Sure this open some divisions in the party," s GOP pollster Linda DiVall. "But if took a survey, most Americans ld tell you they're relieved that Bush Congress are putting aside the flag endment and getting down to work a serious national issue."

Moreover, while a megadeal isn't assured, Bush would reap a huge personal dividend if his summiteers pull one off. "Bush felt the risk of inaction, and a possible recession in '92, was too great a shadow to cast over his reelection," says former Democratic National Committee Chairman Robert S. Strauss. "If we get a deal, interest rates will go down. In the long run, this pays off for Bush."

And if it all falls apart? Political analysts say the White House is well-positioned to blame Democratic intransigence for the failure. "If the [tax concession] resolves the budget mess, then Bush gets credit for tackling a major national problem," says pollster DiVall. "And if not, well then, nothing happens, does it?"

Not exactly. Regardless of how the tax wars turn out, the President's mid-course correction has jolted Republican confidence and deeply strained the GOP coalition. The most pressing problem for the White House is keeping unhappy conservatives on the reservation.

Representative Robert S. Walker (R-Pa.) has gathered more than 100 signatures on a letter pledging to fight any rate increase. Just two days after Bush delivered his stunner, White House aides were scurrying to contain the rebellion and were talking up the President's firm opposition to rate hikes.

The spin campaign seemed to buck up some dispirited conservatives, but not much. "George Bush doesn't want to raise taxes," gamely ventured House Minority Whip Newt Gingrich (R-Ga.), a leader of the antitax forces. Adds former White House political director Mitchell E. Daniels Jr.: "Voters won't be confused about which party is less likely to tax them. We're still the party that's least likely to raise taxes."

PLEDGE PRISONERS. That's not good enough for GOP congressional hopefuls, who are now chained to their no-tax rhetoric. GOP Representative Lynn M. Martin, who hopes to capture the Illinois Senate seat held by Democrat Paul Simon, says that "Illinois voters don't want higher taxes, even if the guy in the White House says he does." She'll stick to her position. So will GOP House member Bill Schuette, who is trying to upend Democratic Senator Carl Levin in Michigan. Schuette calls tax hikes "the fatal ingredient" in the Bush budget strategy.

Just how mad are Bush's conservative allies? Mad enough to get their direct-mail fund-raising machines cranked into high gear. But this time, the object of their wrath is not some wayward Kennedy but a Republican President. "If the President signs a tax increase, he will, with the stroke of a pen, reinvigorate a dormant conservative movement," says GOP consultant Thomas Edmonds. "I don't think he understands the damage that this flip-flop can do to him within his own party." Adds conservative leader Richard Viguerie: "Bush has opened himself to a serious challenge" within his own party. "He'll have to rely on the Yale alumni club to get reelected."

That's hyperbole, of course. But as a stunned White House struggled to regain its equilibrium after Bush's bombshell, all of the old political verities seemed at risk. That left Presidential aides scrambling to control the firestorm their boss's tax strike started—and trying to figure if the political costs will exceed the economic benefits.

By Lee Walczak and Douglas Harbrecht, with Paula Dwyer, in Washington

WHITE HOUSE BOUND: THE PLEDGE LASTED TWO YEARS

BURNETT/CONTACT PRESS

TWO SUMMITS, ONE QUESTION: AID FOR GORBACHEV

How far can the West go to prop up the Soviet leader without compromising its security interests?

For a few days, President Bush can get out of the kitchen—or in this case, the capital. On July 4, while Washington stews in a tax-and-budget frenzy, Bush heads for a key NATO meeting in London. Then he'll roll into Houston on July 7 to host the annual get-together of the leading industrial democracies.

But this year's foreign policy extravaganza is likely to prove unsettling. While *Twin Peaks* cultists while away the summer wondering who killed Laura Palmer, participants at the dual summits will grapple with a melodramatic question of their own: How far can the West go in propping up Soviet President Mikhail Gorbachev without compromising its security interests?

West German Chancellor Helmut Kohl and French President François Mitterand believe that massive Western aid to Moscow is needed to persuade Gorbachev to sign off on the West's design for the face of a post-cold-war Europe (table). An infusion of cash for Moscow, some allies argue, will sweeten the bitter pill of a unified Germany in NATO and also bolster Gorbachev. The allies need a politically secure Gorbachev to conclude landmark accords on German unity and arms cuts in Europe. Bush is willing to do his bit by giving the beleaguered Soviet leader political support and some assurances about the military role of a united Germany. But the President draws the line well short of direct economic aid.

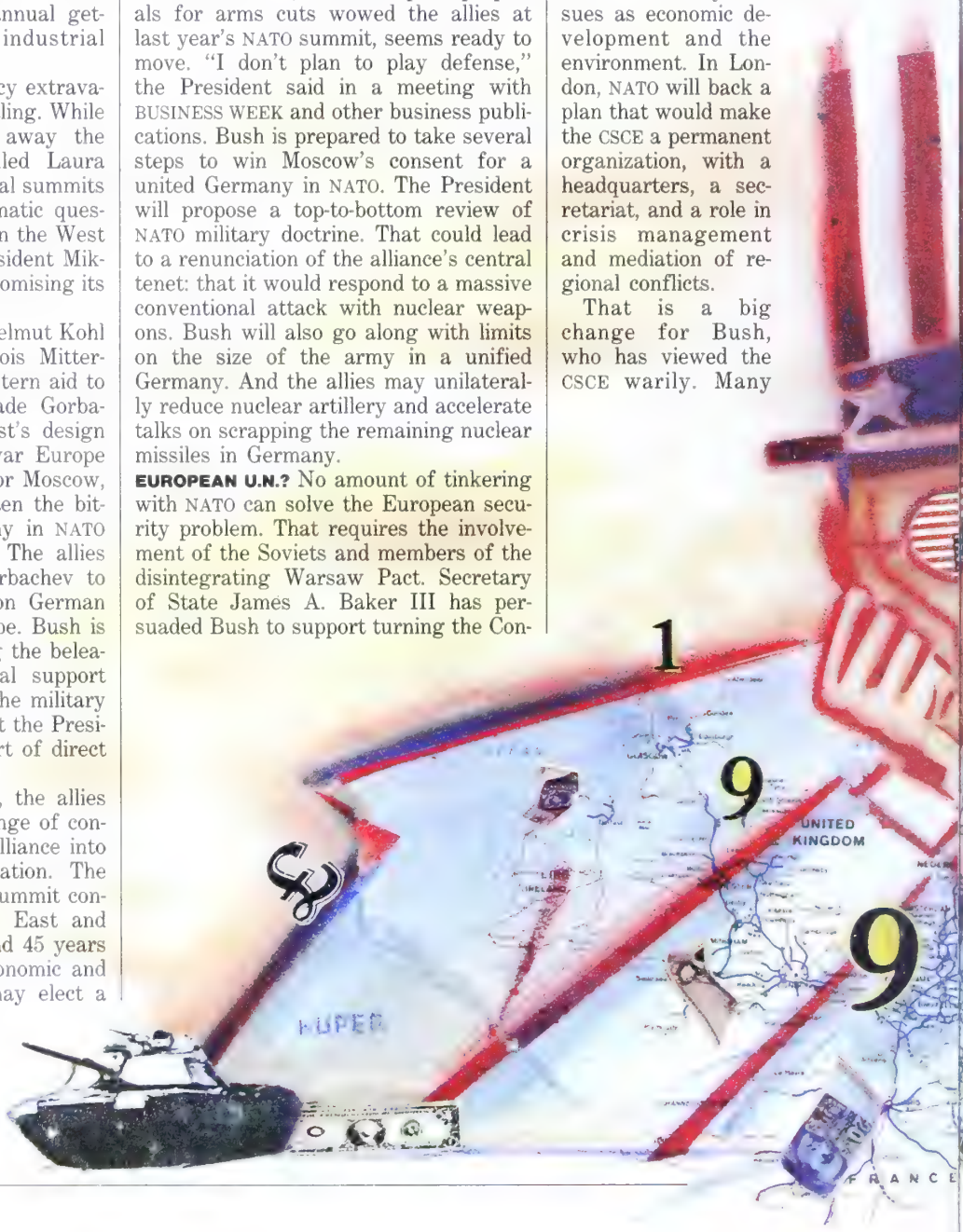
GOOD TIMING. First, however, the allies must grapple with the challenge of converting a cold war military alliance into a cohesive political organization. The timing is perfect. The NATO summit convenes just three days after East and West Germany effectively end 45 years of division by forging an economic and monetary union. Germans may elect a unified parliament by yearend.

Germany isn't the only problem. Since the end of World War II, the tension between East and West has squelched ancient European ethnic and national hostilities. The crumbling of the Soviet empire has unleashed all the old demons—and has put pressure on Bush to transform NATO into a new stabilizing force.

The President, whose surprise proposals for arms cuts wowed the allies at last year's NATO summit, seems ready to move. "I don't plan to play defense," the President said in a meeting with BUSINESS WEEK and other business publications. Bush is prepared to take several steps to win Moscow's consent for a united Germany in NATO. The President will propose a top-to-bottom review of NATO military doctrine. That could lead to a renunciation of the alliance's central tenet: that it would respond to a massive conventional attack with nuclear weapons. Bush will also go along with limits on the size of the army in a unified Germany. And the allies may unilaterally reduce nuclear artillery and accelerate talks on scrapping the remaining nuclear missiles in Germany.

EUROPEAN U.N.? No amount of tinkering with NATO can solve the European security problem. That requires the involvement of the Soviets and members of the disintegrating Warsaw Pact. Secretary of State James A. Baker III has persuaded Bush to support turning the Conference on Security & Cooperation in Europe into a sort of European U. N. Until now, the CSCE has been a loosely organized group of 35 nations, including the U. S. and the Soviet Union, that has met occasionally to talk about such issues as economic development and the environment. In London, NATO will back a plan that would make the CSCE a permanent organization, with a headquarters, a secretariat, and a role in crisis management and mediation of regional conflicts.

That is a big change for Bush, who has viewed the CSCE warily. Many



TOWARD A NEW EUROPE

NATO As the key U.S. link to Europe, NATO must evolve away from its military role. In London, the allies will begin a review of whether to change such key doctrines as using nuclear weapons to deter a conventional attack

CONVENTIONAL ARMS TALKS Moscow is reluctant to conclude negotiations on deep cuts in troops and armaments in Europe until it secures limits on the future size of a united German army

GERMANY Agreement on German troop levels will lead Moscow to back the unification of East and West Germany within NATO, a key Western goal. East and West Germany will reach monetary and economic union on July 2

CSCE Though Washington has reservations, Europeans prefer the loose 35-member Conference on Security & Cooperation in Europe as the framework for a new security organization

SOVIET AID A European Community meeting on June 26 backed West German and French calls for coordinated Western aid to the Soviet Union. The U.S. may leave open the door to providing food or medical assistance

DATA: BW

te House advisers fear that such d-based security ar- gements would only e American influ- . "The history of e things is they 't work," worries senior Administra- official.

beefed-up CSCE ld be popular ughout Europe and specially attractive Gorbachev. "Bush t convince the Sovi- hat we're not build- a Europe without n," says Gregory n, an East-West ex- at the Carnegie Endowment for In- ational Peace. The payoff for the U. S. is supposed to be increased Soviet willingness to conclude a deal on conventional arms.

How to help the West by helping Gorbachev will also be a major topic at the July 9-11 Houston economic summit. Some Group of Seven nations hope to put cold cash behind the West's warm wishes for Gorbachev. Mitterrand and Kohl have proposed a $15 billion Soviet aid package.

Kohl, in particular, is willing to spend lavishly to silence Moscow's objections to German unification. The deeper fear is that without aid, the Soviet Union will suffer an economic collapse that could spread beyond its own borders. "To keep the reform movement in the entire Eastern world alive, we should undertake everything possible," says a high-level German official.

BOXED IN. But Bush, with backing from Britain, Japan, and Canada, isn't ready to bail out the Soviets. He's willing to let individual nations help any way they like. "I think it comes under the heading of 'their business,'" Bush said on June 21. He reasons that giving aid before reforms are in place would only slow the transition to the more efficient, freer economy Gorbachev has promised.

The European Community's decision on June 26 to back aid for Moscow puts Bush in a political box. If Washington opposes the aid—or even hesitates—a major European initiative for the post-cold-war era could go forward without the U. S. That would be a severe blow to an Administration bent on maintaining a major U. S. role in Europe. But if Bush goes along, he invites catcalls at home. In March, the White House blasted a Democratic idea for a mini-Marshall Plan for the Soviet economy.

Although Gorbachev's fate and Europe's changing face will dominate the Houston gathering, it won't be a summit without the usual intramural battles. The thorniest issue is European resistance to a U. S. plan to phase out farm subsidies. Without a push from the summit, negotiators fear the dispute could sink global trade talks as a yearend deadline nears. "If the leaders don't give the talks a shove, it ain't going to happen," warns a senior Canadian official.

To ease Latin America's fears that European issues are swamping prospects for south-of-the-border aid, Bush on June 27 proposed a Western Hemisphere free-trade zone and increased investment in Central and South America. But Washington is pledging only $100 million a year in extra investment. And the plan's biggest concession—an offer to write down $7 billion in Latin debts owed to the U. S. government—could lead Poland and other debt-laden Eastern European governments to demand similar treatment.

At bottom, however, both summits are about one crucial concern. With Gorbachev's future looking increasingly uncertain, Bush and the allies are racing to erect a new structure for a new Europe while there is still a reasonably predictable Soviet Union to deal with. The prospect of a united Germany within NATO, a largely demilitarized Central Europe, and Eastern European democracies moving toward economic stability sounds utopian. But in fact, it's now within the allies' reach. That gives Bush and his fellow leaders a huge incentive to settle their differences with a minimum of fuss. With Europe in transition, this is no time for squabbling.

By Bill Javetski, Douglas A. Harbrecht, and Mike McNamee in Washington, with Mark Maremont in Dublin and bureau reports

RAIDERS

CAN CONISTON SLING HASH THE WAY IT DID DEALS?

Their raiding days over, the partners must milk cash from their eateries

They were classic raiders. Coniston Partners spent the 1980s snapping up stakes in undervalued companies, then pressuring the chief executives to sell off assets. Often, Coniston walked off with a bundle after being bought out. But the 1980s are over. With takeover financing now scarce, Coniston announced on June 25 the breakup of its roughly $850 million investment pool. Why? Says Coniston principal Keith R. Gollust: "We don't want to be known as the guys who did one deal too many."

Maybe they already have. The Coniston trio—along with Gollust, Paul E. Tierney Jr. and Augustus K. Oliver—controls a $300 million stake in TW Holdings Inc., parent of TW Services Inc., and the group's only outright acquisition. While Coniston investors will get back roughly $200 million, an investment group led by Gollust, Tierney, and Oliver is keeping 52% of TW and a 9.7% piece, valued at $377 million, of UAL Corp.

BOFFO BEANERIES. TW boasts a snazzy portfolio of its own: the Denny's chain of family restaurants, food-service operator Canteen, the El Pollo Loco chicken and Quincy's Family Steak House chains, and 465 Hardee's Food Systems franchises. So far, Coniston says it has no plans to sell any major pieces.

Trouble is, Coniston is scrambling to nail down mortgage financing by Dec. 1 to replace the final $412 million installment of a bridge loan used to pull off its $2.8 billion buyout of TW last June. That will hardly be a cakewalk, owing to the current real estate crunch. Then there's the trick of paying down TW's remaining $2.4 billion debt load without the quick fix of asset sales.

Gollust isn't worried. TW's banker, Morgan Stanley & Co, has reached a tentative agreement with a group of Japanese lenders for $160 million in mortgage loans secured by 240 Denny's restaurants. Of that, $120 million will go toward the bridge loan. Coniston is having less success, though, recruiting U. S. lenders to commit $300 million secured by mortgages on the Hardee's and Quincy's restaurants. Coniston recently brought in Donaldson, Lufkin & Jenrette Securities Inc., which owns 15% of TW, to assist Morgan Stanley. Gollust insists that TW will beat the deadline.

Meanwhile, Coniston and TW CEO Jerome J. Richardson face other pressures. Without major asset sales, and with the bulk of operating profits being plowed back into capital spending, TW's debt load won't shrink soon. Worse, most of TW's debt is floating rate, so a big runup in interest rates would smart.

That means cash flow is vital. Last year, as measured by earnings before interest, taxes, depreciation, and amortization, cash flow totaled $391 million. But that won't cut it this year. Servicing the debt heaped on by the TW buyout will soak up $232 million of this year's cash output. And Richardson has budgeted $178 million in capital expenditures for 1990, 4% more than last year.

So far, Richardson has come through. Cash flow hit $90.1 million during the first quarter, 21.2% above a year earlier. At that pace, analysts figure TW could generate a record $460 million in cash flow for the full year. Even so, TW, like most leveraged buyouts, is reporting big losses—$46.1 million on sales of $862 million in the first quarter.

SHORTER MENUS. Better results at Denny's are key to TW's debt-management plans—even though they won't come cheap. To build traffic, Richardson has added service workers, pushed ahead a remodeling program, and cut menu items by 25%. While the chain's average sales per store rose 8% during the first quarter, its 8% operating margin is still below the average 10% to 13% for midpriced restaurants, figures analyst Michael G. Mueller of Montgomery Securities in San Francisco.

Richardson has now turned his attention to Canteen, the commercial food-service unit. TW has cut Canteen's corporate staff 17% and is dumping less profitable contract-feeding and vending-machine operations. To replace that work, Canteen is courting new business at schools, hospitals, and park facilities.

If these changes take hold, TW's operating profits could jump 10% annually starting this year, figures Montgomery's Mueller. And though TW could get ugly in a hurry, investors aren't sweating just yet. "The company still has a superior cash flow," says Tito Tettamanti, a Swiss financier and Coniston investor.

Coniston isn't likely to match the 35% returns from its raiding days. The partnership's recent poor performance prompted foreign investors such as Tettamanti to pressure Coniston to disband its portfolio back in May. Gollust says the decision was mutual. One thing is clear: Managing a company isn't quite as easy as bullying one.

By Chuck Hawkins in Spartanburg, S. C., with Brian Bremner in New York

BURGER BOYS: OLIVER, TIERNEY, AND GOLLUST (FROM LEFT)

CONISTON PARTNERS' MAJOR PLOYS

MARCH, 1985 Coniston, with a 5.3% stake in Storer Communications, presses for breakup of the television and cable company. Storer goes private for $2.1 billion, and Coniston earns a $39 million profit

MAY, 1985 Coniston uses its 13% stake in Allegis, owner of United Airlines, to push for a sell-off of the company's nonairline assets. The upshot: Company sells its hotel and car-rental properties and launches a $2.8 billion stock buyback. Profit for Coniston: $175 million

DECEMBER, 1988 Coniston buys 6.8% of Gillette and wages a proxy battle. Gillette buys back 16% of stock. Coniston reaps a $40 million profit

NOVEMBER, 1989 Coniston acquires 9.7% of UAL (formerly Allegis) and proposes a board shakeup. Coniston backs a $4.38 billion employee buyout of the airline, but Coniston is sitting on a $33 million paper loss

DATA: BW

THEY'RE STILL GROPING'

ıst what is the right image
r Oldsmobile?

THE OLDS BRAVADA: TARGETING YOUNGER BUYERS WITH OFF-ROAD VEHICLES

What makes an Oldsmobile distinct from, say, a Buick? Unfortunately for General Mo-rs Corp.'s oldest division, no one seems know. The recent ad campaign, "This not your father's Oldsmobile," drew a t of attention, but it never explained hat an Oldsmobile is supposed to be.

Now, GM insists it has the answer: Smart, contemporary vehicles." That finition, says Oldsmobile Div. General anager J. Michael Losh, "will be the iving force that will help us recover ır market share." But the rubber has rely hit the road on Olds' latest image mpaign, and already the marketing os are turning thumbs down. "A and identity has to be something peo-e can understand," scoffs Jack Trout, lf of the marketing consultants Trout Ries. "They're still groping."

Losh had better hope the marketing os are wrong, for Oldsmobile desper-ely needs fixing. Sales likely will drop 560,000 vehicles this year from 1.1 illion cars in 1986, and Olds' fuzzy arketing image draws much of the ame. Even with the new Silhouette, its rst minivan, Oldsmobile's share of the mbined car and light-truck market ipped to 3.9% in the first five months this year, down from 4.3% a year rlier. Losh intends to reclaim sales adership for Olds in the mid- and large-ze car segments (chart), but he's got a ng way to go.

SSENCE OF BUICK. After a string of ok-alike cars hurt GM sales badly in the id-1980s, the auto giant set out to dis-nguish more clearly its divisions' brand entities. The effort met some success. ontiac's "We Build Excitement" image t it apart as the youth nd performance-car division. uick eventually decided that would build "Premium merican Motor Cars" that ould be substantial—in oth-words, big American cars, ut with better quality. uick even put together an rt show for its personnel nd suppliers featuring ob-cts that it felt conveyed a uick-like essence, among em large mahogany desks nd a cello.

In the meantime, Oldsmo-ile floundered. At first, harking back to its 1939 introduction of the clutch-free Hydra-matic transmission, it claimed that Olds stood for innovative technology. But every GM division wants hot technology in its cars and trucks, and Olds couldn't get first and exclusive claim. And in such areas as engines, transmissions, and suspensions, GM's technology usually lags behind its competitors. Then, Olds tried the "father's" campaign, with paltry results.

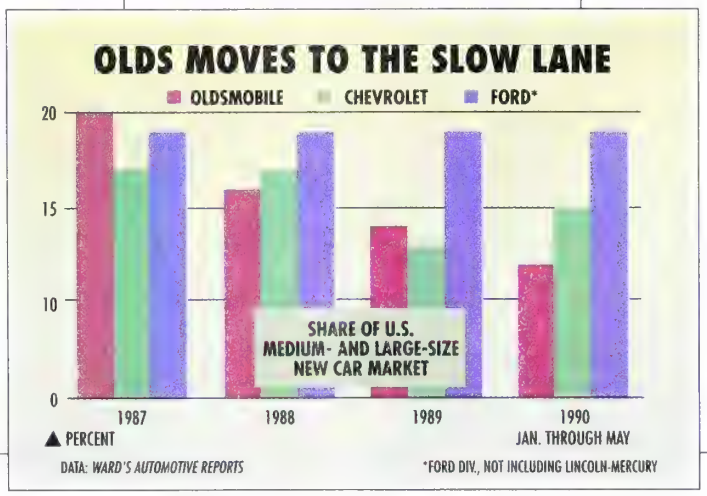
A major problem is Oldsmobile's difficulty targeting its market. Olds officials agree that they want to lure the 35- to 55-year-old upscale buyers who need a larger, family vehicle but who currently gravitate toward imports. But Olds is reluctant to alienate its existing owner base, older and less educated than the demographic goal. Attracting buyers across generations "tends to muddy the waters," says James Muir of Jim Muir Oldsmobile-GMC Truck in Troy, Mich.

GM's attempts to increase volume by giving the same vehicle, with mostly cosmetic changes, to several divisions make it nearly impossible to maintain clear-cut brand differences. Take GM's plastic-bodied minivans, introduced last year. Originally conceived by Losh when he was Pontiac's general manager, the van was to be sold as the Chevrolet Lumina APV and the Pontiac Trans Sport. Then, Oldsmobile begged for it, pointing out that Olds had lost more buyers to minivans than any other GM division. So it got the Silhouette version of the van.

But if Pontiac is for younger buyers who want speed and Olds is for families, then the minivan "doesn't belong in a Pontiac dealership," argues Maryann Keller, auto analyst at Furman Selz Mager Dietz & Birney Inc. Indeed, the market is bearing that out. Initially, Olds received a much smaller share of minivan output than Chevy or Pontiac. But in response to actual sales, the latest production schedule gives Olds as many minivans as Pontiac. The product overlap continues. This fall, Oldsmobile will introduce a four-door off-road vehicle, the Bravada, derived from similar four-door versions that Chevy and GMC Truck began selling this year.

Losh says Oldsmobiles will be characterized as refined, innovative, responsive, and balanced. It may be two years before the division's lineup clearly shows its avowed brand character, he adds, while admitting: "Is there still going to be overlap between us and Buick? Sure." Given the realities at GM, with its structural barriers working against divisional distinction, "smart, contemporary" may be the best Losh can do for now. Trouble is, it may not be enough.

By James B. Treece in Traverse City, Mich.



PHOTOGRAPH BY PETER YATES, CHART BY RAY VELLA/BW

MARKETING

A WASHOUT FOR CLOROX?

Its pricey detergent launch will dilute earnings

SOME $80 MILLION WAS SPENT ON PROMOTING AND MARKETING CLOROX DETERGENT

It wasn't Clorox Co.'s style at all. Two years ago, the king of bleach introduced a line of detergents. The move, entirely out of character for the conservative company, was an audacious attempt to capture a piece of the $3.5 billion market from giants Procter & Gamble, Colgate-Palmolive, and Unilever. But its mixed success to date has depressed earnings, the stock price, and more than a few investors.

Now, Clorox is hedging its bet. On June 20, it announced the $465 million acquisition of the Pine Sol and Combat product lines from American Cyanamid Co. The purchase adds the country's No. 1 cleaner and No. 2 insecticide line, plus $235 million in annual sales, to Clorox' $1.5 billion arsenal of such products as bleach, cat litter, barbecue sauce, and salad dressings.

'A BIT TOO MUCH.' At two times sales, the purchase was pricey, but in the long run analysts think that Clorox' tight-fisted management methods will wring plenty of cash from the new brands. But they do nothing to advance Chairman Charles R. "Chick" Weaver's campaign to seize turf from P&G and Unilever PLC. And with those two behemoths set to introduce new detergents nationwide in coming months, Weaver soon may have to decide whether to keep playing in that hotly competitive arena. Weaver declined to comment for this story.

Some investors aren't waiting that long. The recent purchase sent the stock down 1¾, to 42⅛, the day after the announcement. Investors don't like the way the purchase will dilute earnings, already hurt by investments in detergent, by as much as 40¢ a share the first year. "They may be taking on a little bit too much," says William J. Newbury, an analyst with the College Retirement Equities Fund in New York.

The acquisitions, though, are mere annoyances. What's more worrisome to some investors is the move into detergents. Because of aggressive countermoves by competitors, Clorox' share in the 45% of the country in which it is selling—the West, the Southwest, and the Southeast—is only about 5%.

That's slightly above what the company had targeted, but only because Clorox has spent some $80 million annually in promotions and marketing, according to analysts—far more than the $60 million it originally budgeted. Salomon Brothers Inc. analyst Hugh S. Zurkuhlen estimates Clorox will lose about $45 million on detergents in the fiscal year ending June 30 and up to $70 million next year. Another bad sign: The Oakland (Calif.) company's share is slipping below 4% on the West Coast, its oldest market.

Why hasn't Clorox Detergent cleaned up? For one thing, it is competing with companies at least 20 times its size. And P&G countered with the well-received Tide With Bleach. Moreover, the powdered-detergent market is declining as liquid detergents grow in popularity.

Worse, Clorox' well-known brand name could actually be a liability. "People see Clorox, and they think bleach," says Dennis R. Ferguson, a buyer for Raleys, a regional supermarket chain in

P&G IS ADDING NEW SPICE TO OLD SPICE

First came Pepto-Bismol. Procter & Gamble Co. bought the familiar pink stomach remedy, pumped up its ad budget, pushed it through a huge distribution system, and gave sales a healthy boost. That was back in 1982. P&G execs have since "become pretty good rehabbers of acquired franchises," says Chairman Edwin L. Artzt. The latest candidate: American Cyanamid Co.'s Old Spice, a well-known but sleepy fran- [illegible] buying it for upwards of $300 million.

"We don't have a recipe we take out of a drawer [that says]. 'These are the five things we have to do.'" says Durk I. Jager, an executive vice-president at P&G. But after years of developing new or [illegible] brands, P&G has established a solid record building on other companies' monikers.

Take Oil of Olay. Long the queen of facial moisturizers, it had been fading under Richardson-Vicks Inc. Enter P&G. After its 1985 acquisition of the Connecticut company, it upgraded the product and added new versions, including [illegible] for sensitive skin. It also retargeted [illegible] of Olay for younger women, the bra[illegible] original source of support. P&G [illegible] versed U.S. market share losses—[illegible] sales are up 60% worldwide. Now [illegible] broadening the Olay name with a [illegible] cleanser intended to remove ma[illegible] without irritation.

VARIATIONS. P&G's bulk laxative, [illegible] mucil, another 1985 acquisition, also [illegible] new variants and broader distributi[illegible] stronger sales. Unlike Olay, it hasn[illegible] pended on overseas sales for its g[illegible] but it will be pushing there soon. T[illegible] also a major reason for P&G's intere[illegible] Old Spice: It gives the internatio[illegible] minded company a beachhead aroun[illegible] world in men's toiletries. Nearly ha[illegible]

fornia where Clorox Detergent isn't ing well. "They don't want all their hes to turn white." And while rox' product is color-safe, it doesn't r a marked improvement over Tide h Bleach, says analyst Jack L. Salz- n of Goldman, Sachs & Co.

lorox still has plenty of working capi- to bankroll such a massive undertak- —$200 million before the acquisition, ch will take only about $65 million in n. Further, even if Clorox continues stumble, the 28% stake in the compa- held by Henkel, the West German mical giant, should deter any un- come suitors. And Clorox may have a dow of opportunity in detergents: gate-Palmolive Co. is ceding mar- share to reap higher profits these s.

CK EXIT? But it's apparent that rox' biggest expansion kick to date cost it dearly. Analysts put the cost a national rollout—Clorox hasn't yet ided on the timing yet—at more than 0 million, far above original company mates of $120 million. And that could to $200 million in the face of new ducts from Unilever and P&G.

lorox could always drop the entire ject. Prudential-Bache Securities Inc. lyst Andrew Shore says eliminating expense would add up to 45¢ a share he bottom line, offsetting the effect the American Cyanamid acquisition. eed, he says, that makes now a good e to exit detergents.

he problem is, Clorox might lose as ch as it would gain by such a move. would raise a question of where the g-term growth is going to come m," says First Boston Corp. analyst nne R. Hyman. "They need bigger inesses to help them grow." But rox will have to brighten up its deter- t marketing considerably to avoid ting taken to the cleaners by the big s.

By Robert D. Hof in San Francisco

ely recognized brand's sales come broad, although Cyanamid hasn't ed it actively everywhere it's sold. s a franchise everybody knows says Jager. "We hope, with our ucture, we can help it grow."

vill have to work hard to restore to a brand whose market share has agnant. But analysts are satisfied price, about 1.5 times revenues, is Just cutting costs and tweaking the t should pay for itself," says Jay H. an, an analyst at Kidder, Peabody & can't be quite that optimistic about rand it has bought lately, but les- arned in the Pepto-Bismol experience have kept many marketing depart- lcers at bay.

By Zachary Schiller in Cincinnati

GARFINCKEL'S IN WASHINGTON: ABBOUD MAY GET STUCK FOR MOST OF A $28 MILLION LOAN

FIRST CITY'S DEALS ARE FALLING LIKE DOMINOES

Bob Abboud drummed up business far from home. Maybe too far

To many Texas bankers, A. Robert Abboud is something of a magician. Since taking over troubled First City Bancorp two years ago, Abboud has transformed it into a profitable powerhouse. Driven by strong commercial loan growth, it earned $112 million last year—a return on equity of 15.9%, quite healthy for a Texas bank. That left in-state rivals mystified, since they're still smarting from the bust in oil and real estate. "We couldn't figure out how they were doing it," says a top executive at a major Texas competitor.

Now they know. In his zeal to rev up First City's earnings, Abboud roamed far from Texas—perhaps too far. He was attracted to the fat margins in debt-heavy buyouts and to high-flying customers such as Drexel Burnham Lambert Inc. Now, the deals are falling like dominoes. Since January, four big-name clients—Drexel, Circle K, Federated Department Stores, and Garfinckel's—have filed for Chapter 11, jeopardizing $79 million in loans. As Frank Anderson, analyst at Stephens Inc. in Little Rock, puts it: "Everybody wants to know what other loans are in there."

Already, sour loans are hurting profits. Ignore a onetime gain from the sale of a large credit-card unit in the first quarter, and First City earned only about $17 million, down 35% from a year ago, say analysts. The bank is expected to net a respectable $90 million this year, but the forecast would cloud up fast if more bad loans pop to the surface. Nonperforming loans rose $48 million, or 34%, in the first quarter, to $188 million.

'WELL-COVERED.' Abboud dismisses the handwringing. He insists he'll collect the four loans, including $25 million from Drexel, where he heads the creditors' committee. He promises, too, that the bank's biggest surprises are behind it. "On a massive scale of business, these are small . . . and well-covered by provisions," he says. Indeed, First City's assets total $12.7 billion. But Wall Street is skeptical. Since January, First City's stock has fallen $8 per share, to $29.

Tough challenges are nothing new for Abboud. When he couldn't cough up the money to buy the

ABBOUD: NO MORE BIG SURPRISES?

PHOTOGRAPHS BY WALTER CALAHAN REID HORN

bank in late 1987, he brought in Drexel, which helped him by raising $100 million in four days. After recapitalizing the bank—with $500 million in private capital and $970 million from the Federal Deposit Insurance Corp.—Abboud brought in a cadre of tough-nosed former First Chicago Corp. officials and began whipping First City into shape.

The problem was that good business loans were scarce in Texas. Abboud began scouring the globe, visiting China, Iraq, and Mexico to drum up business. Back home, Abboud in August, 1988, lent $28 million for working capital to Garfinckel's, a once-glitzy Washington, D. C., department store chain owned by Wafic Said, an old associate of Abboud's. He later sold off 25% of the loan, but got stuck for the rest when Garfinckel's went belly up on June 21.

ROBUST RATIOS. But Abboud's main focus was leveraged buyouts. By late 1988, he had lent money to help finance LBOs and other high-debt deals cut with Federated Department Stores, Circle K, and at least 15 others. Such deals generated yields up to 2.5 percentage points above average bank loans, or about 13%, and they put big credits on the books fast, boosting earnings, analysts say. By the end of 1989, First City's $372 million in so-called highly leveraged transactions represented 35% of capital. These days, that's not extraordinary, but analysts wonder whether Abboud's pell-mell rush makes his loans riskier than most.

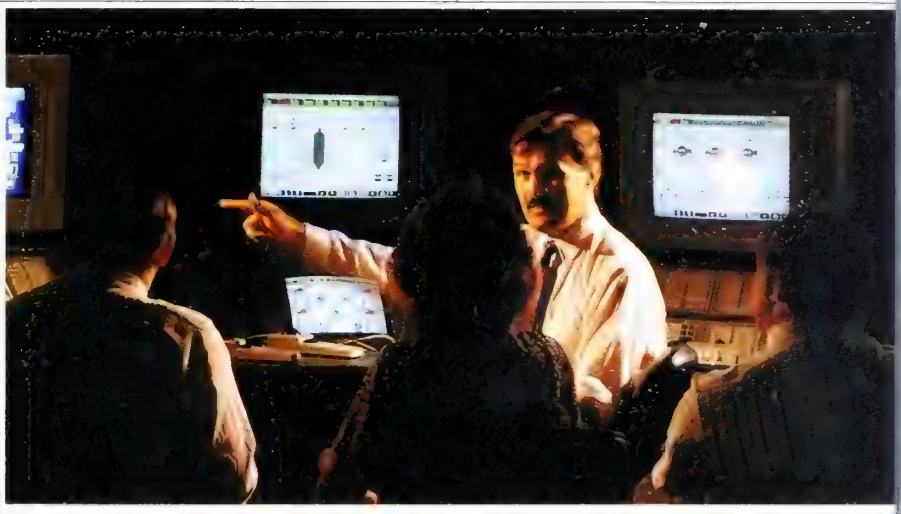
First City isn't about to crater. Its capital ratio is a healthy 7.6%, well above the federal minimum of 6%. Abboud, who owns 6% of the stock, is tightening credit policies and reducing high-leverage loans. He's shifting into a lower gear, slowing First City's breakneck growth and dampening profits. Abboud may prevail at First City, but the magic is gone from his record.

By Mark Ivey in Houston

TAKEOVERS

SHAKEUP ON THE FACTORY FLOOR

Britain's Siebe buys Foxboro and vows to 'bury' Honeywell



FOXBORO'S AUTOMATION SYSTEM: DEVELOPMENT COSTS ALMOST BLED THE COMPANY DRY

Britain's Siebe PLC is no household name. But there's a good chance the car you drive or the building you work in is made more comfortable by Siebe valves and meters controlling temperature flow. Now, Siebe aims to become a power on the factory floor. With its June 25 agreement to pay $656 million for Massachusetts-based Foxboro Co., Siebe moves aggressively into the business of providing process controls for such industries as food processing, petrochemicals, and papermaking.

That sets it smack up against Honeywell Inc. in the battle for dominance in the $5 billion U. S. controls market, and makes Siebe a stronger global competitor as well. Siebe has been snapping up smaller controls companies in the U. S. for four years, but it took Foxboro to establish it as a strong No. 2 against Minneapolis-based Honeywell.

Strong in sales, anyway. Because financially, Foxboro is a mess. For a decade, it has been plagued by profit problems, with losses in three out of the last five years. In 1989, the company lost $4.5 million on sales of $597 million. Dividend payments have been an on-again, off-again proposition since 1987.

UP FOR AUCTION. Indeed, mounting shareholder dissent over the miserable financial performance finally pushed Foxboro to begin shopping itself around last March. Forcing the issue were members of founding Bristol family, who control 22% of the company, and investor George Soros, who used his 4.8% stake to win a board seat for himself and another for institutional holders. By early June, Foxboro had put itself up for a full-fledged auction.

Did Siebe overpay? The price tag "is very expensive for a company in the doldrums," says John Cahill, who has been eyeballing Foxboro for years as managing director of BTR PLC, a large British industrial conglomerate.

Nonsense, replies E. Barrie Stephens, Siebe's chief executive. Stephens orchestrated a fivefold increase in Siebe sales since 1985, to $2.35 billion, and a ninefold pretax profit jump, to $310 million. The absorption of Foxboro will be just as successful, he insists. He'll trim redundant capacity, rejigger pricing strategy, and move Foxboro products through Siebe's international sales force.

But competition in the controls market has become tougher than ever. The Taylor Systems controls unit at Connecticut's Combustion Engineering likely will benefit from its purchase last December by Asea Brown Boveri, the Swedish-Swiss industrial powerhouse. And Honeywell is focusing on its controls operations in the wake of a major restructuring that calls for spinning off most of its defense operations.

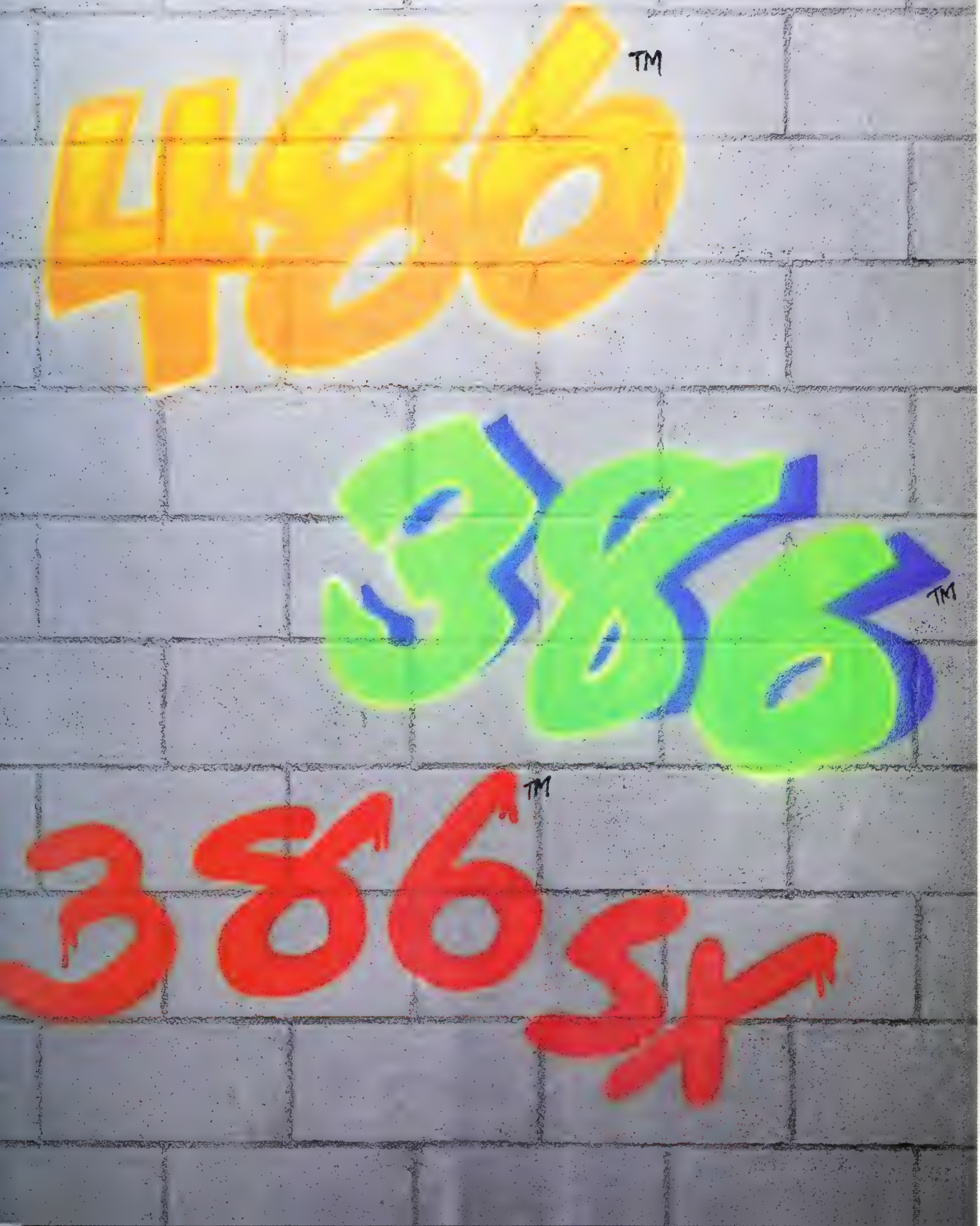
According to Foxboro Chairman and CEO Gary K. Willis, Stephens intends to "bury" Honeywell. While ruling out a price war, Stephens is confident he can take market share away from his American foe. Honeywell simply says it "expects to maintain" its lead.

Foxboro's new process-control automation system, known as I/A, is among the most advanced in the industry, going up against Honeywell's TDC 3000. Costing $250 million to develop, however, it has been plagued with software problems, hammering profits and forcing Foxboro to cut back on other product spending. Now, though, analyst Andrew Silver of Dillon, Read & Co. believes the troubles are behind I/A and he forecasts a Foxboro profit turnaround to perhaps $6 million this year—and reckons $27 million next year is within reach.

Stephens has run into opposition in the financial markets in the past for his acquisitiveness, only to win over skeptics. That may explain why Siebe stock held up well on the news of the Foxboro deal. But with flagging profits in U. S. manufacturing putting a damper on capital spending, Stephens had better hope he didn't pick the right turnaround candidate at the wrong time.

By Richard A. Melcher in London and Gary McWilliams in Boston

The numbers outside.



In Business This Week

EDITED BY HARRIS COLLINGWOOD

APPLE FINALLY FILLS ITS HOT SEAT

▶ After a five-month search, Apple Computer has found someone to fill a job that nobody seemed to want. On June 26, the personal-computer maker announced that Robert Puette, former PC chief at Hewlett-Packard, had been named president of Apple USA, which runs Apple's domestic sales effort.

Several prominent industry executives turned Apple down, including former insiders, before Puette, 48, agreed to take the post. That's because the job is something of a hot seat: The 24-year HP veteran is charged with the difficult task of improving stagnant U. S. sales of Apple's aging product line. He also has to boost sagging morale at Apple USA. The position opened up after Allen Loren was forced to resign last January.

CAT'S NET INCOME IS TANGLED IN BRAZIL

▶ On June 25, heavy-equipment manufacturer Caterpillar announced that it expects substantially lower profits in 1990. The company says second-quarter net income may drop to less than $45 million, compared with $141 million in 1989's second quarter. Caterpillar blames a slowdown in the Brazilian economy. Dean Witter analyst Richard Rossi says Brazilian operations may lose $80 million this year vs. profits of $110 million last year. Investors reacted by dumping Cat stock. By the time the smoke cleared on June 26, Cat shares were sitting at 52½, down 11.

AIG GETS INTO AIRCRAFT LEASING

▶ International Lease Finance, the fast-growing aircraft-leasing company, wants to grow even faster. So on June 25, it agreed to be acquired by American International Group, the insurance giant, for $1.3 billion.

The deal gives ILF much-needed access to new capital. Already saddled with $2.3 billion in debt and under mounting pressure from rating agencies, the company must raise $14 billion over the next few years to finance the purchase of scores of new planes. AIG gets a major player in a booming business.

A HAWAIIAN AIRLINE MAY BE GROUNDED

▶ Discovery Airways, a new entrant in the Hawaii market, may get its wings clipped. On June 26, a Transportation Dept. administrative law judge recommended that the agency yank the carrier's temporary operating license because of concern over foreign ownership. Discovery's financing comes largely from the Hawaiian subsidiary of Nansay, a Japanese real estate developer. The unit's president, Philip Ho, a U. S. citizen, controls 75% of Discovery's voting stock.

Discovery had proposed a voting trust for Ho's stock, but Judge Ronnie Yoder doubted that the arrangement would work. He also doubted the airline's claims that it was a U. S. carrier. Discovery officials expressed disappointment at the ruling, which is subject to further review.

The department said it was "inclined to give considerable weight" to Yoder's recommendation. If Discovery is grounded, it would be a victory for Aloha Airlines and Hawaiian Airlines, which currently dominate the market.

HERE, YOU LEARN TO USE A SHTICK SHIFT

The California Motor Vehicles Dept. frowns upon drivers who run afoul of the state's traffic regulations. Violators who want to wipe tickets off their driving records have to pay $45 or so to attend a private traffic school. But the schools themselves aren't so grim. Many hire stand-up comedians to teach the rules of the road and give themselves bizarre, eye-catching names. And until recently, traffic courts furnished miscreants with lists of such driving academies as Lucky Brake and D-rive U Silly.

Seems the California DMV can't take a joke. Saying the "stupid" names trivialize traffic safety, the agency on June 1 started identifying traffic schools by number only. Traffic school operators are fighting back by running their own ads. That means California drivers haven't seen the last of such institutions of higher learning as Lettuce Amuse U.

UNISYS FINDS A FRIEND IN MITSUI

▶ Another U. S. computer company is snuggling up to a large Japanese benefactor. On June 26, Unisys said it would sell $150 million worth of preferred stock to trading giant Mitsui. The stock may be converted into 4.6% of Unisys common.

The deal, combined with a $50 million, five-year loan from Mitsui, should help the struggling mainframe maker work down its heavy $4 billion debt load. Mitsui and Unisys each currently own a third of Nihon Unisys, which markets computers in Japan. The stock sale may also pave the way for Mitsui's Toshiba electronics arm, a leader in laptop computers, to enter the large systems business.

"Why can't you build sand castles like the other kids?"

SPARING POLITICIANS THE S&L STIGMA

▶ Midterm elections are approaching, so now is the time for all good Democratic and Republican politicians to start blaming each other for the savings-and-loan debacle. But if a recent BUSINESS WEEK/Harris Poll is any indication, maybe they're wasting their breath. The survey of 1,254 U. S. adults, conducted June 21-26, shows that the public is willing to let Congress, regulators, and the Reagan Administration off the hook. The real villains, say 55% of the respondents, are "crooked savings-and-loan executives." Few of them, it's safe to say, are running for office.

The computer inside.

Since buying a computer today is such a umbers game, here's a simple rule of thumb. ook for 386™SX, 386™ or 486™ on the outside to be ertain that you have Intel technology on the side. From the company that invented the icroprocessor. The company that has shipped ver 10 million 32-bit processors. The same ompany that's investing over $1 billion this year to make sure the computer inside your computer has the technology, power and compatibility to take you into the future.

intel®

The Computer Inside.™

990 Intel Corporation.

The Computer Inside. 386 & 486 are trademarks of Intel Corporation.

SHARP NUMBER ONE IN FAX

THE PLAIN PAPER FAX REVOLUTION HAS OFFICIALLY BEGUN.

SHARP NOW MAKES PLAIN PAPER FAX AFFORDABLE.

From the leader in fax for the past three years comes the next major step. Affordable laser technology that brings plain paper fax within any company's reach.

The new Sharp FO-5200 can give you crisp, high-resolution documents on bond paper for just 3 cents a page — a fraction of the cost of other fax machines.

And with the advanced features and memory that today's business demands.

That's the kind of innovation it takes to remain the leader.

To learn more about the FO-5200, or any Sharp fax, call 1-800-BE-SHARP.

SHARP.

FROM SHARP MINDS COME SHARP PRODUCTS™

©1990 Sharp Electronics Corporation

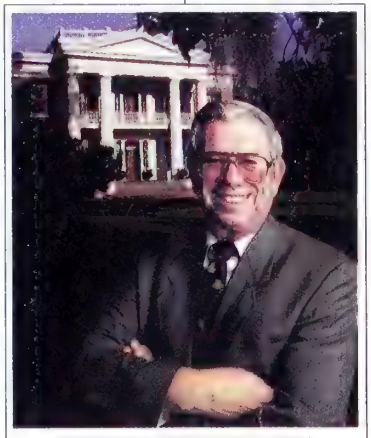
EDITED BY STEPHEN H. WILDSTROM

EORGE BUSH IS ACTING IKE A BORN-AGAIN ENVIRONMENTALIST

o hear some environmentalists talk, you would think Ronald Reagan was still President and James G. Watt was ordering every forest in sight to be razed by chain-wielding zealots. After the Bush Administration anced on June 26 that it would likely give only limited tection to the northern spotted owl, Wilderness Society sident George T. Frampton Jr. denounced the action as treme." Even a stronger-than-expected move the same day estrict offshore oil drilling drew fire. Sierra Club Executive ector Michael Fischer blasted the Administration's decision call for more coastal studies as "a hold-r from the Reagan Administration."

t's the nature of Washington that special-erest groups defend their positions with gle-minded intensity and protest loudly t half a loaf is worse than nothing. But er an ecologically shaky first year in of-, George Bush has tried hard in recent eks to become the "environmental Presi-t" promised in his 1988 campaign.

he oil-exploration moratorium was, in t, a major breakthrough. Bush announced t vast areas along the Gulf and Pacific sts would be off-limits to oil development least until the year 2000. The President ered studies of potential environmental nage in places where oil may be found. e decision, says Interior Secretary Manuel ian Jr., will "insure that oil and gas can continue to be duced in an environmentally responsible manner."



INTERIOR SECRETARY LUJAN

ELING ISOLATED. It's probably no accident that the offshore-decision and other pro-environment moves came as 1990 ction campaigns are heating up. The prospect of an Admin-ration endorsement of expanded drilling was giving fits to publican gubernatorial candidates in California, where polls w 75% of voters opposed to drilling, and in Florida, where Governor Bob Martinez is trailing in a reelection bid. The ite House considers hanging on to those statehouses key to Republican gains in next year's congressional redistricting.

The fact is, 1990 is shaping up as the greenest political year in two decades—and Bush isn't about to let Democrats run away with the issue. In 1988, Democrats expected to make hay with the Reagan environmental record. Bush counterattacked by blaming his opponent, Massachusetts Governor Michael Dukakis, for not cleaning up Boston Harbor.

Both domestic and international political considerations were behind an Administration turnaround on chlorofluorocarbons (CFCs), which destroy the earth's ozone layer. In May, the Administration said it would not support a plan to help Third World nations find alternatives to cheap CFC-based refrigerants. But it soon became apparent that the U. S. was isolated from allied leaders, who face strong environmental pressures from their voters. As the lone holdout, Bush would face heavy flak over CFCs at the Houston economic summit. So in mid-June, the White House abruptly reversed its stand.

These moves haven't won over environmentalists, who suspect that Bush's conversion is temporary. Activists complain that he has been unwilling to consider tough action on global warming and that he wants to weaken the Endangered Species Act, to allow more room for economic considerations.

But 1990 is likely to end up as a year of considerable progress. In addition to the oil moratorium and moves to protect the ozone layer, Congress is wrapping up a massive, Bush-inspired rewrite of laws that will significantly reduce air pollution.

George Bush may be only an election-year environmentalist, but elections come along frequently. And after a long stretch of Reaganesque battering, environmentalists are likely to get a good deal of what they want from the Bush White House—at least in even-numbered years.

By Vicky Cahan

PITAL WRAPUP

EGULATORS

Securities & Exchange Commission Chairman Richard C. Breeden has een fighting a public battle to win versight of stock-index futures trad-g, now regulated by the Commodities utures Trading Commission. But CFTC fficials complain that they're also the rgets of a guerrilla war. The SEC hairman has been maneuvering to rip the CFTC of its seat on an impor-nt technical committee of the Inter-ational Organization of Securities ommissions (IOSCO). And as part f his attempt to streamline the rganization, Breeden recommended he elimination of a subcommittee chaired by a senior CFTC official. At a meeting on June 27 in Montreal, the IOSCO technical committee scheduled a formal vote on Breeden's proposal for November.

LABOR

Atlanta labor lawyer John N. Raudabaugh, a partner in Constangy, Brooks & Smith, is likely to become the next member of the National Labor Relations Board. Raudabaugh, 43, will be named to fill the board seat vacated by John E. Higgins, now the NLRB's solicitor. The Bush Administration is also planning to reappoint Labor Board Chairman James M. Stephens, whose term expires in August.

JOB SAFETY

Employers who tolerate highly dangerous working conditions could face stiff jail terms, under a bill now moving through the Senate. The Labor & Human Resources Committee on June 27 approved a law making it possible to bring felony charges against employers whose willful violation of safety rules results in the death of a worker. The maximum sentence would go from six months to 10 years. The Occupational Safety & Health Administration favors allowing felony charges but opposes a further provision permitting criminal prosecution for violations that lead to "serious bodily injury.

D. GORTON

INDEPENDENCE PARADE: FOR NOW, LOTS OF CONFIDENCE

HOW A FREER QUEBEC COULD RESHAPE THE CONTINENT

As the province gains autonomy, U.S. economic ties with all of Canada will be transformed

When 200,000 Quebecers paraded through Montreal on June 25 to celebrate the dawn of a new, more independent era for Quebec, the blue-and-white *fleur-de-lis* filled the streets, and banners declaring "Our true nation is Quebec" took on special meaning. Two decades of struggle to keep the French-speaking province in Canada at any price are over. Now, as Quebec's separatists try to figure out how to manage their new status, the rest of Canada will also undergo an identity crisis. "Canada has entered the most difficult period of its history," says Joseph T. Jockel, a Canada specialist at St. Lawrence University in Canton, N. Y.

Quebec and its nearly 7 million citizens are now launched on a path that will affect the entire structure of America's largest trading partner. The June 23 collapse of the Meech Lake Accord, which would have guaranteed Quebec's "distinct" status, means Quebec can now cut a new deal with Prime Minister Brian Mulroney's government. That, in turn, will encourage discord throughout Canada's loose confederation. "Whatever Quebec gets, the other provinces will want in equal measure," predicts Michael A. Walker, director of the Fraser Institute, a Vancouver (B. C.) think tank. British Columbia already is seeking similar treatment, and other provinces are starting to arrange bilateral economic deals among themselves.

Quebec will step up its business drive into the U. S., helping to redefine U. S. economic relations not only with the French-speaking province but also with Canada as a whole. As the East-Wes ties that bind Canadians are strained North-South trade, investment, and tour ism linkages are certain to accelerate But because the provinces will demanc more power over their own affairs, the difficulties for a U. S. company operat ing across Canada could deepen.

In seeking Quebec's new identity, Pre mier Robert Bourassa's path seems clear. Until 1993, when his party faces provincial elections, he plans to take over functions once handled at the feder al level, such as control over immigra tion, telephones, cable television, anc manpower training. That will accompany substantial autonomy in managing Que

c's education, legal code, and pension nd. The goal, says International Af-rs Minister John Ciaccia, is to "devel- a formula in which decisions that af-t Quebec are taken by Quebec."

The push toward greater indepen-nce will be boosted by the distinctive *rigiste* model of government-business operation that Quebec has achieved. like the Anglo-Saxon system in the S. and much of Canada, Quebec's vernment, business, and financial ders follow a cohesive industrial poli- that uses state savings and direction support its enterprises.

But Quebecers are moving to avoid dical change. Plans to create a Quebec ntral bank and currency, which severe- damaged earlier separatist attempts, e out this time. Bourassa's strategy, ys Pierre Laurin, Montreal-based vice-airman of Merrill Lynch & Co.'s Cana-n unit, is "keep your cool and don't do ything to jeopardize the economic undness of the province."

G DEALS. Essential to Quebec's success U. S. business support. Even while nada was gripped in debate about eech Lake, Bourassa was meeting th New England governors to deepen ebec's ties with them. Quebec's $17 lion in exports to the U. S. are concen-ted in New England and New York. ch of that is in traditional areas such electricity, pulp and paper, and alumi-m. Hydro-Québec, for example, is now ving into the second phase of a big ctricity deal with New England, and a g-term $17 billion contract with New rk starts in 1995.

Other Quebec companies in aeronau-s, computer services, and advanced chnologies have been expanding out-le Canada with a vengeance. These nge from well-known giants such as mbardier, Quebecor, and Lavalin to sser-knowns such as DMR Group. DMR nerates about 60% of its $150 million sales from computer services in the S. and other countries. Its client list cludes such heavyweights as Johnson Johnson and Boeing. "It's just a fact at there are more opportunities in the S. than in the rest of Canada," says accia.

Bombardier Inc. is buying the U. S.'s earjet Corp. on top of recent acquisi-ns in Britain and France. It's also aking subway cars for New York City, reetcars for Portland, Ore., and mono-il vehicles for Disney World in Florida. Regardless of politics, we're going to ntinue our orientation toward the U. S. d Europe," says Laurent Beaudoin, airman of Bombardier.

Quebec has been flexing its financial uscle to speed up the U. S. push. With cking from the Caisse de Dépôt et acement, the giant provincial pension nd, Quebecor bought out the U. S. printing business of British press baron Robert Maxwell, making it the No. 2 printer in North America. Mouvement des caisses Desjardins, a $38 billion organization of credit unions, has backed smaller local companies, including steel-joist maker Canam Manac Inc., which is moving into the U. S.

American companies operating in Canada, however, may find life becoming more complex. They will have to pay even greater attention to differences between French and English speakers in hiring and training executives, in maintaining a single Canadian headquarters, and in their marketing and advertising campaigns. Now, labor climates could diverge as Quebec's unions take different positions from other Canadian workers. Companies in accounting, consulting, law, and advertising also could feel new strains between their French- and English-speaking partners and executives.

But Quebec officials are hardly anti-business. The province was a strong supporter of the U. S.-Canadian Free Trade Agreement, which took effect on Jan. 1, 1989. And the emergence of a Quebec business class has been decisive in giving the province the confidence to redefine its relations with Canada. When separatism first became an issue in the 1970s, the provincial economy was still dominated by English speakers. The flight to Toronto of insurer Sun Life Assurance Co. and most headquarters functions of Bank of Montreal and Royal Bank of Canada underscored its vulnerability. Now, financial institutions led by French speakers, including Caisse de Dépôt, Banque Nationale, and Mouvement des caisses Desjardins are big boosters of Quebec business.

Most economists figure Quebec is strong enough to make it on its own. But there are plenty of weaknesses. At more than 9.7%, unemployment is a painful two points above the Canadian average. Despite progress, Quebec's industry is heavily oriented toward resource-based industries such as forest products. And in high tech, "there are more entrepreneurs than there were, but there still aren't nearly enough," says Serge Godin, chief executive of Groupe CGI, a Montreal computer services company.

Such weaknesses in Quebec's economy are likely to put a brake on radicals who want a definitive split with Canada. But to avoid further infighting and live with Quebec, Canada may have to evolve into increasingly autonomous regions along the lines of the European Community, and that will take strong leadership. Mulroney's stock has fallen so low that in a recent *Maclean*'s magazine poll, 49% of usually proud Canadians said they'd prefer George Bush as their head of state vs. just 35% for Mulroney. If Canada's dance with disintegration goes too far, the Bush Administration's studied noninvolvement could one day be put to the test.

By Thane Peterson in Montreal and William J. Holstein in New York

QUEBEC'S ECONOMIC SCORECARD

1989	Quebec	Percent of Canadian total
POPULATION	6.7 million	25.6%
GDP*	$129.8 billion	23.6%
FOREIGN TRADE*	$40.9 billion	15.0%

*U.S. dollars

POWERHOUSE: HYDRO-QUEBEC EXPORTS HUGE AMOUNTS OF ELECTRICITY TO THE U.S.

EUROPE

SWEET SHELF SPACE: A PARISIAN CHILD REACHES FOR A MILKA CANDY BAR MADE BY SUCHARD

SUPERMARKET DARWINISM: THE SURVIVAL OF THE FATTEST

Europe's big foodmakers are scrambling to become giants fast

When the Marlboro man lassoed the trademark lavender cow of Switzerland's Milka chocolate on June 22, he may have touched off the last roundup in the fast-consolidating food industry. Dozens of Europe's small national companies have already been corralled. Now, Philip Morris Cos.' $3.8 billion buyout of Milka's owner, Swiss chocolate and coffee purveyor Jacobs Suchard, shows that even the biggest food companies are fair game.

This leaves such big names as Britain's Cadbury Schweppes and United Biscuits, which have dominated their home markets, with a stark choice: either establish positions in other markets or risk being swallowed up. More efficient distribution networks and growing Europewide brand awareness are enhancing the marketing and advertising clout of such global players as Anglo-Dutch Unilever PLC and Switzerland's Nestlé. Unless a brand ranks in the top two or three, supermarket chains, which also are consolidating, don't want to stock it on their shelves.

SUPERLEAGUE PLAYER. With the purchase of Suchard, Philip Morris becomes the second U. S. company—after Mars—to assure itself a place in Europe's superleague. The deal more than doubles Philip Morris' European sales, to $8 billion, lifting the company to third place—behind Nestlé and Unilever (table). In contrast, RJR Nabisco Inc., once a leading player in Europe, is selling off food units to pay down debt from its $24.7 billion leveraged buyout of 1989.

Suchard brings Philip Morris a shopping cart full of top brands, ranging from Milka and Toblerone chocolates to Grand' Mère and Jacques Vabre roasted coffees and Van Houten's cocoas. The deal also brings "broad distribution and manufacturing capabilities" throughout Europe, says Philip Morris Chairman and CEO Hamish Maxwell.

EUROPE'S BIG GUNS IN FOOD SALES

	European sales Billions of dollars
NESTLE	$15.1
UNILEVER	12.2
PHILIP MORRIS*	8.0
BSN	7.8
MARS	4.1
CADBURY SCHWEPPES	3.1

*Includes Jacobs Suchard

DATA: BANK VONTOBEL, BW ESTIMATES

Suchard threw in the towel because it couldn't get bigger than a distant No. 3 in its main lines, although it tried hard. In the past four years, it bought six old-line confectionery companies, ranging from U. S. hard-candy maker E. J. Brach to Belgium's Côte d'Or chocolatier. But it lost out to rival Nestlé in a 1988 contest for Britain's Rowntree PLC. Attempts to merge with Cadbury Schweppes PLC also faltered. So Suchard Chairman Klaus J. Jacobs decided to sell his 60% voting control to Philip Morris. Jacobs got cash and assets that were worth about $1.5 billion.

European food companies believe great size is necessary to cope with the supermarket mega-alliances that are now forming. In April, eight European chains, including Britain's Safeway Food Stores Ltd. and France's Casino, formed Associated Marketing Services to pool buying power and promote their own house brands. They're likely to include only the food biggies in their plans for streamlining distribution and developing new products.

One company that has already had to change its strategy is Campbell Soup Co. After building up to $1 billion in sales in Europe, partly by acquisition, the American soup maker is switching its emphasis to specialty products and has put businesses with $200 million in annual sales on the block.

MAIN COURSE. By contrast, Cadbury is now embarked on a feeding frenzy to snap up top brands. In May, it paid $215 million for Source Perrier's soft-drink operations in Europe, after snaring British candy maker Trebor. It has also picked up Bassett Foods and the U. S. soft-drink maker Crush International. Another rumored prospect for a takeover, United Biscuits (Holdings) PLC, bought the Dutch cookie maker Verkade in May for $160 million and is dumping its less profitable Wimpy and Pizzaland restaurant chains.

These second-tier companies still have some time, because the biggest players such as Nestlé, which bought Rowntree and Italian pasta maker Buitoni, are still absorbing their acquisitions. But France's BSN, despite taking on heavy debt recently to buy $2.5 billion worth of RJR Nabisco businesses, already has struck again. This year, it has taken over two pasta makers, West Germany's Birkel and, in partnership with the Agnelli family, Italy's Agnesi. And the insatiable Unilever has purchased at least 11 food companies, including cheese maker Boursin in France and Spanish olive-oil processor Costablanca. In an industry where the dominant wisdom is "bigger is better," the consolidations probably will not stop until the table is swept clean.

By John Templeman in Bonn, with Richard A. Melcher in London

EDITED BY JOHN PEARSON

HINA MAY FIND IT HARD O CASH IN ON FANG'S FREEDOM

By letting dissident physicist Fang Lizhi fly to England on June 25 from his year-long refuge in the U. S. embassy in Beijing, China's hidebound Marxist leaders re trying to project an image of flexibility to the world hout significantly loosening their rigid control. The governnt pitched the release of Fang toward the Western economsummit in Houston, July 9-11, in which leaders of the world's en largest industrial nations will consider whether sancns against China are to continue.

The message that's likely to reach the aging ijing regime is that they are. Western governnts are still reacting to public bitterness over t year's Tiananmen crackdown and won't go ch beyond a limited easing of lending curbs ile thousands of other Chinese dissidents rein in prison. For China's paramount leader, 85-r-old Deng Xiaoping, that means another setk to his plan for economic reform. Deng oses any political softening that would jeoplize the Communist Party's grip, and his curt steps toward economic liberalization, such limited financial reforms and development of stal areas that trade with the West, are only e imitations of those championed by former emier Zhao Ziyang.

FANG LIZHI: LIBERATED

More than anything, what the Fang episode eals is the aging Beijing leaders' continuing illusion that y can insulate China from the ferment in most of the mmunist bloc while maintaining vital economic ties with the est. In the current Chinese jargon, that policy translates as ppression inside, liberal outside."

ANK-YOU NOTE. The decision to allow Fang and his wife, Li uxian, to leave came out of a bitter debate earlier in June the party's standing committee. It concluded that China's tional interest, and the party's, would be served by repair ties with Washington. On one level, the gesture repaid esident Bush for the political risk he took in making his cision to renew China's most-favored-nation trade status despite Congress' demands for a tougher policy toward China.

Among the current leadership, Fang's release may also signal a strengthening of party chief Jiang Zemin and former Tianjin Mayor Li Ruihuan, who favor reintroducing piecemeal economic reforms, against conservative opponents led by Prime Minister Li Peng. China's army even hopes the U. S. will eventually see its way to resume military aid.

More important, Beijing wants the U. S. to support renewed World Bank lending to China as well as loans on favorable terms by individual governments. China badly needs such injections: In the 18 months before Tiananmen, contracts for foreign investments totaling $8.3 billion were approved, but actual investments have been flat since then.

FARM LOANS. At the summit, Prime Minister Toshiki Kaifu will lobby for the unfreezing of $5.2 billion worth of development loans on favorable terms to China, which Japan put on hold as part of a Western consensus after Tiananmen. But the summit is likely to agree only to such loans by the World Bank and individual countries for "basic human needs" such as food production.

China's government also hopes Fang's release will help win a warmer reception for Shanghai's Mayor Zhu Rongji, who will tour the U. S. in July and try to stir investor interest in China. But foreign companies' wariness since Tiananmen is compounded by problems from materials shortages to the frustrations of doing business in Beijing. One Western businessman there dismissed the Fang decision as "a bone to the U. S. Congress."

Underlying such judgments is a more profound change in China's relations with the West that Beijing's leaders have yet to grasp. In the year since Tiananmen, the radical transformations in other communist societies have raised the world's expectations for political reform far higher than any Chinese leader is prepared to go.

By Dinah Lee in Hong Kong, with Lynne Curry in Beijing and Amy Borrus in Washington.

LOBAL WRAPUP

RAZIL

President Fernando Collor de Mello launched a drastic opening of Brail's highly protected economy on June 6 by eliminating tariffs on 300 prodcts, from petrochemicals to machine ools, that are not made in Brazil. For thers, from textiles to autos, he lowred tariffs to an average 20%. The rade liberalization is the latest in a eries of moves by Collor since he took ffice on Mar. 15 to shift Latin Ameria's biggest country toward a marketriven economy.

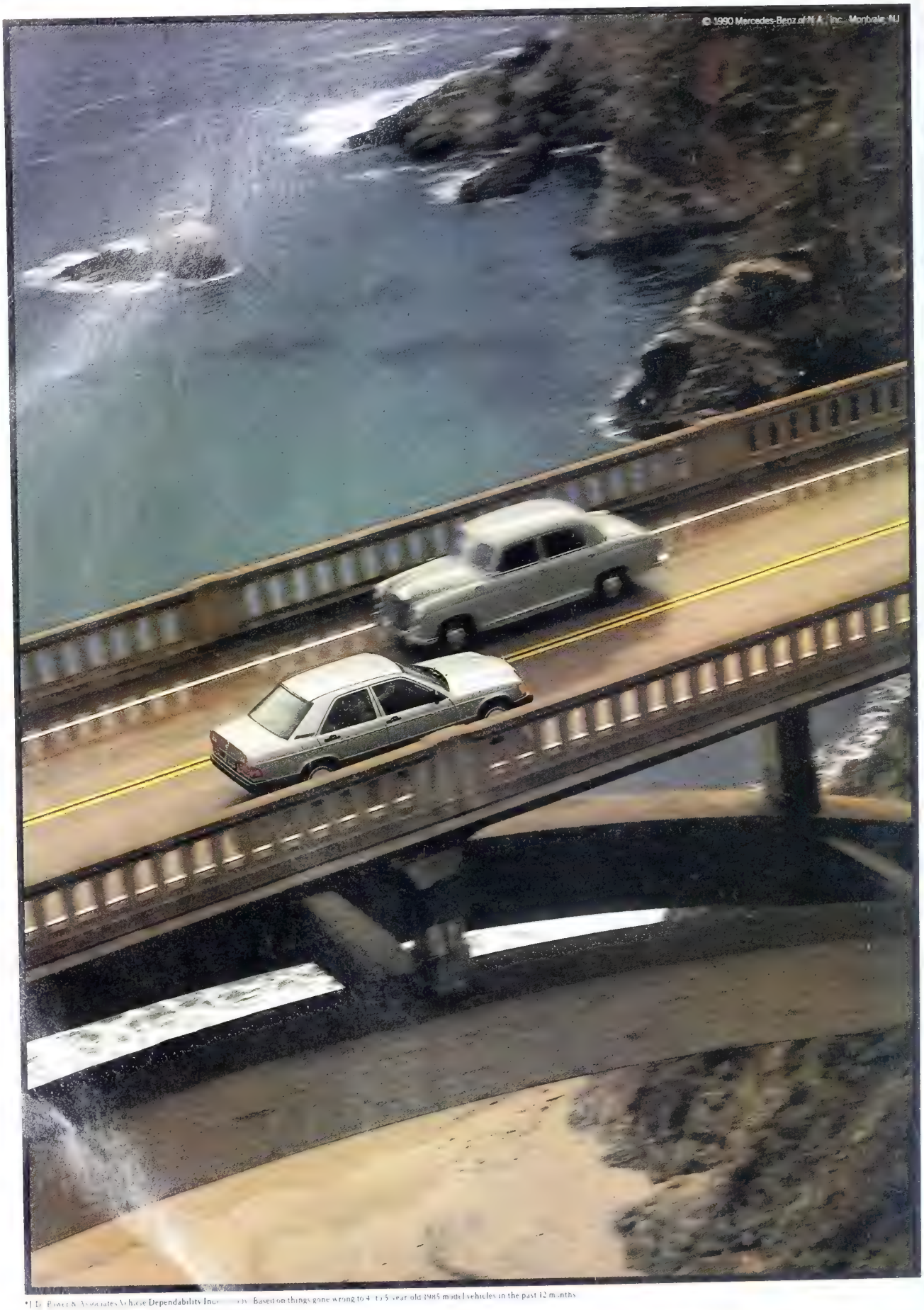
Collor also asked Brazil's Congress o enact laws protecting patents and ther intellectual-property rights. That action got an immediate favorable response from the Bush Administration, which removed 100% retaliatory duties imposed by the U. S. in 1988 against imports of Brazilian paper products, consumer electronics, and some drugs. The duties were a response, under U. S. trade laws, to complaints by U. S. pharmaceutical makers that their patents lacked protection in Brazil.

The market opening is expected to boost Brazil's imports, which totaled $18.2 billion last year, and shrink its trade surplus from the 1989 level of $16.1 billion, one of the world's highest. The U. S., as Brazil's biggest trading partner, should benefit.

American and other foreign companies in Brazil will benefit, too, from the Collor government's plan to lift a six-month ban on profit remittances. Some of the $1.8 billion in foreign profits that were immobilized in mid-March, when Collor froze most bank accounts to curb inflation, are also expected to be freed.

The new measures add momentum, and credibility, to Collor's plans for drastic reform of Brazil's heavily regulated, state-dominated economy. Carrying out a pledge to shrink the bloated government, Collor so far has laid off 150,000 employees of federal ministries and agencies, about 10% of the total, and he is expected to trim yet another 50,000 by September.

AP/WIDE WORLD



*J.D. Power & Associates Vehicle Dependability Index. Based on things gone wrong to 4- to 5-year-old 1985 model vehicles in the past 12 months.

The car declared the most durable in the world meets the car ranked the most dependable in America.

Robust long life seems to be almost something bred into the Mercedes-Benz genes.

The *Guinness Book of World Records* has taken note of this phenomenon by declaring a 1957 Mercedes-Benz, with 1,184,880 miles on the clock, "the world's most durable car."

And in a recent survey of long-term vehicle dependability, covering original owners' experiences with their 1985 cars,* J.D. Power & Associates found — surprise! — that Mercedes-Benz owners report fewer things gone wrong than owners of any other cars in the survey.

Of course, the levelheaded engineers of Mercedes-Benz insist that even phenomena can be explained in rational terms.

By an R&D brain trust twelve thousand people deep, for example. By a bank of more than ten thousand original engineering patents. And by manufacturing tolerances somewhat finer than the width of a human hair.

Focus these and myriad other Mercedes-Benz engineering strengths on the goal of building the most dependable and long-lived cars possible, the engineers say–and the rest will logically follow.

And the rest, of course, is automotive legend.

If you wish to follow up on the remarkable dependability and longevity accomplishments of Mercedes-Benz, visit your authorized dealer soon. Or call 1-800-228-9191 toll free, anytime.

ENGINEERED LIKE NO OTHER CAR IN THE WORLD

TRANSPORTATION

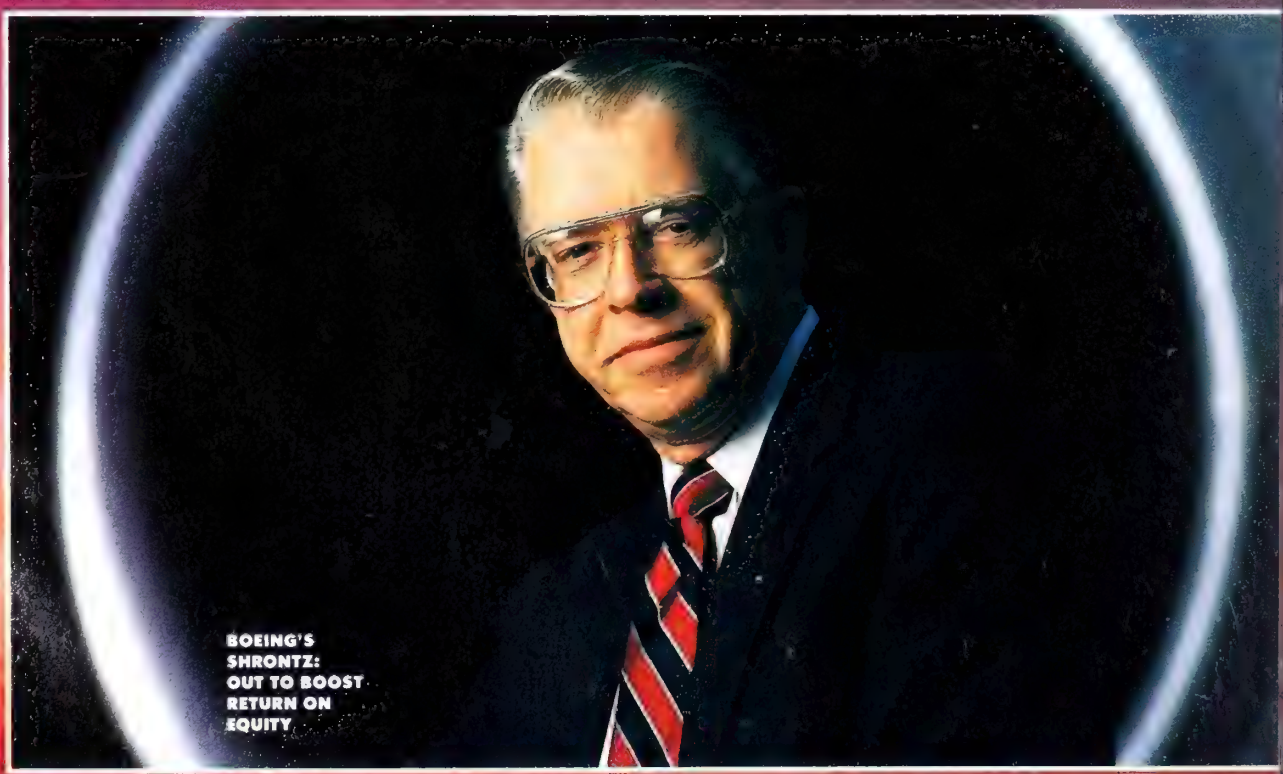
HOW BOEING DOES IT

AMERICA'S EXPORT MACHINE IS READY TO BET BIG ON ITS EMBRYONIC 777

When it comes to world-class competitors, there's simply no contest. Boeing Co. is in a league by itself. With its 54% share, it dominates the commercial aircraft business. Its mind-boggling backlog of $91 billion is enough to keep its factories working at capacity for most of the decade. Even though it now takes five years to get a new 747, orders are streaming in from such countries as Japan, Britain, South Korea, and China. And while last year was a tumultuous one, the company has resolved most of the manufacturing, technical, and labor problems that threatened its success.

So with profits up and the stock sky-high, is Chairman Frank A. Shrontz resting on his laurels? No way. There's plenty of reason for concern. Despite Boeing's heady success, Shrontz is feeling the heat from its two rivals, Europe's Airbus Industrie and McDonnell-Douglas Corp.

Boeing is flying full-throttle to sell its customers on a new long-distance, 350-seat airplane called the 777. It will vie for business in what promises to be one of the fastest-growing segments of the market in the 1990s. Trouble is, the plane hasn't been launched yet, and both Airbus with its A330/340 family and McDonnell-Douglas with its MD-11 have already sewn up orders worth about $30 billion. Even as Boeing scouts a launch customer, Airbus and McDonnell are promising to supply planes several years before 1995, the earliest possible date Boeing can deliver the 777.



BOEING'S SHRONTZ: OUT TO BOOST RETURN ON EQUITY

hat's the reason all eyes are trained United Airlines Inc. these days. In a ter of weeks, maybe sooner, United s to make the biggest airplane order —some analysts estimate it will ap- ch $20 billion. While United has al- s favored Boeing planes in the past, competition is shaping up as a high- es horse race. Airbus has clearly en in shape, generating big interest ts A330 and A340. And although h of its 22% market share has come e expense of a troubled McDonnell- glas, McDonnell's MD-11 is also ly regarded.

e purse is enormous—and so is the for Boeing. Since it plans to spend east $4 billion to develop the 777, it s an order the size of United's and a others to justify production. Five of eight target customers are foreign nes, but until it gets firm commit- ts, Boeing can't even begin to tap a ket that has huge export potential. t handicap, of course, is hardly lost Airbus or McDonnell. Says Brian H. e, who heads General Electric Co.'s lane-engine division: "It's in their in- st to see that the 777 is not ched."

WDED HALLS. Shrontz and an ex- rdinarily deep team of managers are ing out all the stops to make sure it is. Boeing has a long history of listening to the customer, analyzing the market, and making planes that sell. With the 777, the company is trying to build on that tradition by revamping the way it designs and builds an airplane. The goal is to provide a maximum of customization at a minimum of cost. For United, where teams of marketers from the three contenders bump into each other in the halls, such flexibility is vital. But in an age dominated by financial gymnastics, selling airplanes has become even more complicated: Sources say Boeing, Airbus, and McDonnell are all being asked to consider investing in the pending leveraged buyout proposed by United's unions.

JAPAN AND EUROPE ARE IN THE THICK OF THE RACE TO DEVELOP A QUIETER SUPERSONIC TRANSPORT

Even if Airbus and McDonnell do succeed in clipping the 777's wings, however, Boeing is not going to be toppled from its top position in 5 or even 10 years. Nevertheless, it is crucial for Boeing to solidify its position. The race is on to develop a quiet, environmentally acceptable supersonic airplane. Japan—which will be a major supplier for the 777 program—is working hard on SST technology. So are the Europeans. "We've got to continuously fight complacency," warns Shrontz.

Indeed, the nation is counting on it. Commercial aerospace is one of the few big heavy industries the U. S. continues to dominate. Both by deflecting big-ticket imports and leading the nation in exports, Boeing has a huge positive influence on the U. S. balance of trade. Delighted by its backlog, Wall Street has bid its stock to about $58 a share from $12 a decade ago. Plenty of other companies could learn from its market-driven, long-term style.

MARKET MIRAGE? But even Shrontz admits Boeing's wimpy return on equity is insufficient to fund future development projects (charts). Worse yet, some think the current boom in orders might evaporate—and profits along with it—if airlines run into an oft-predicted recession later this decade. USAir, which is already experiencing big financial troubles, recently delayed acceptance of 12 Boeing 737s by three years. Moreover, even if the economy does hold up, some think the market is simply overheated. Says Maurice A. Foley, president of GPA Group PLC, a big aircraft leasing outfit based in Shannon, Ireland: "There's a

real possibility that the totality of orders is higher than will really be required."

At Boeing's 747-767 plant in Everett, Wash., 45 miles north of Seattle, such worries seem far, far away. The plant is a constant reminder of the rewards that can come from taking bold risks. Boeing's bet on the 747—the biggest commercial aircraft ever built—almost torpedoed the company in the early 1970s. Launched in 1969, the investment in the huge hump-backed airplane ran into a devastating cyclical market downturn in 1971, forcing Boeing to lay off 95,000 of its 148,000 employees. Longtime Seattlites remember a billboard on a road outside town that said: "The last one out of Seattle, please turn off the lights."

GOLDEN EGG. But building the 747 turned out to be one of the smartest decisions Boeing ever made. Because of its range and size, the hulking aircraft is the most efficient plane around for long-distance routes. Since 1985, an updated version called the 747-400 has raked in 307 orders. Pacific Rim airlines, especially, can't seem to buy enough of them, despite a stiff price that ranges between $125 million and $147 million.

In fact, the huge demand—and Boeing's zeal to provide customers a maximum of options—caused huge problems last year. Inexperienced workers hired to meet the production build-up created all kinds of snafus: Deliveries were delayed by as many as two months, and the customers who did get their planes found botched wiring and plumbing, among other things. Airlines were outraged, and a 45-day strike last summer didn't help matters. Says John B. Hayhurst, vice-president of marketing: "We learned painfully that we overcommitted ourselves on the 747-400. The memory is still fresh."

Today, the problems have largely been solved. At its Everett plant—the biggest building in the world, with 63 acres under one roof—Boeing pumps out five jumbo 747s and five of its widebody 767s a month. Amid whirring and whistling and riveting and drilling, fuselage panels from Northrop Corp. and Japan join with Boeing-made wings, as gigantic nose cones and tail fins patiently wait their turn. There's only one robot, a huge machine that drills precise holes in the wings. The rest of the work is done by hand. Next to such huge planes, people look so small that it's hard to believe 8,000 work here each shift.

Outside the factory's 11-story doors, on the flight line, the finished planes sparkle in the fresh, bright sunlight newly painted with the colors of exotic places that will be their new homes: Korea, Britain, Singapore, Japan, Brazil, Algeria. Fire trucks stand by during fueling and takeoff as the jets are tested but all is routine. Every three days, on average, one of the jets flies off to its new owner. If you include its other assembly plants, in Renton, Wash., and Wichita, Kan., Boeing delivers a new plane every day.

But as smooth as Boeing's process has become, building the 777 won't be so easy. Not only is it an entirely new design but it faces all-out competition from Airbus and McDonnell-Douglas. While the two rivals have had their own production glitches lately, their planes are soaking up orders already while Boeing waits for one of its eight target customers to break the ice.

Boeing knows that the 777 must sell at a reasonable price and offer as many options as possible. Already, the target customers have been consulted extensively. So far, the biggest puzzle has been the wing design. First, the wing was too long to fit the space at many airport gates. But when Boeing engineers made it shorter, customers complained of lov

RUNNING TO CATCH UP

1986-87 McDonnell Douglas and Airbus Industrie launch their MD-11 and A-330/340 programs, targeting a niche for long-range, 350-seat aircraft between Boeing's 767 and 747 widebody models

1987-88 After interest builds in rivals' planes, Boeing considers a stretched model of the 767-300 widebody, a stretched 767 with a longer wing, even a 767-300 with a 747-like hump—but customers show little enthusiasm for the designs

1989 Boeing devises an entirely new design, slightly larger than the competition's, with two big engines for efficiency and flexibility. Eight prime customers are brought together with "design-build teams" to make decisions on features such as wings, avionics

1990 The new "777" needs some big customer commitments before it can take off. As A-330/340 orders climb above 200 and MD-11 commitments close in on 150, Boeing isn't out of the gate yet. The Seattle manufacturer targets United and seven other airlines, including five foreign carriers, in an all-out sales blitz. If it gets enough orders to go forward, the next challenge is to build the plane on time and on budget

1992-93 McDonnell and Airbus deliver the first of the new generation aircraft

1995 If all goes according to plan, the first 777 will roll off the assembly line

l efficiency. Now, Boeing is offering olding wing—one that would fly effi- ntly, but tip up at the gate.

Having learned from its 747-400 trau-, however, Boeing is determined to amp its production-design process. In najor departure, it has handed the 777 er to Japanese-style design-build ms. The idea: Bunch marketing, engi- ering, manufacturing, finance, and vice representatives on teams so that h department knows what the other doing. Boeing also plans to arm the ms with "digital preassembly" design hnology so that the 777 can be con- ved, engineered, and "assembled" in ee-dimensional computer models. Be- e a single piece of metal is cut, eing people in all disciplines will know each phase of the design is feasible. he idea is that people on the manufac- ing floor will end up with less to do in vorking parts and more to do with lding airplanes," says Phil Condit, ad of Boeing's New Airplane Div.

IT-YOURSELF. On the 747-400, Boeing nmitted itself to too many minor vari- ons for clients. This time, many op- n-like features—such as satellite com- nications and a metric altimeter—are ndard. The exception is inside the cab- where airlines compete furiously for most effective layout. Here, flexibili- is essential, so Boeing engineers have signed the cabin in a way that mini- zes engineering changes. A variety of throom and galley placements caused uble on the 747-400. The 777 will have ong supporting structures down the ddle of the ceiling and floor so that galleys can be placed almost any- ere. And if an airline changes its nd later, the planes can be reconfi- red at an airport with relative ease. he customers will be able to get what ey want, yet it will look to the factory e less variation," says Condit.

Flexibility and efficiency are essential. United, the Boeing, Airbus, and Mc- nnell-Douglas teams were each hand- a term sheet with 54 demands and ndreds of sub-demands, ranging from all things such as reading lights to gger issues such as fuel efficiency. e demands are exaggerated: In effect, ey form a wish list. But the competi- n is fierce to see who can come the sest to granting all of them. The re- lt is an elaborate dance in which Unit- officials play one manufacturer ainst the next trying to come up with e cheapest solution to its needs.

SKY AND EXPENSIVE. The wing debate a good example. While Boeing went t of its way to develop the folding ng, United is now holding the manu- cturer hostage to the feature. United mires the new design, says one of its ecutives, but officials are concerned at the wing is untested. They complain that the electronic sensors that make sure the wing is locked in are just one more piece of equipment that can fail and cause delays. All in all, the wing appears risky and expensive. "We've all been pushing for a folding wing," says the United executive. "But stepping up to [order] it is a different thing." Not that such a problem would disqualify the 777: It's simply another reason for United to demand a lower price.

Boeing's financial strength, of course, is dazzling. Its huge market share and vast manufacturing resources give it economies of scale neither Airbus nor McDonnell-Douglas can touch. Boeing also has enormous goodwill. Says consultant Uli Baur of Simat, Helliesen & Eichner Inc., "It's like IBM. Nobody ever got fired for buying Boeing." Over the years, its planes have made money for their owners because they are efficient and their characteristics are matched to the market. Pilots and repair crews trained on one Boeing can figure out another easily. And airlines say Boeing's product support is second to none—it can provide parts for a disabled Boeing anywhere in the world within 24 hours.

All of this means that Boeing's strength is self-perpetuating to a certain extent. And its monopoly in the 747's market allows a steady stream of cash to help pay for development projects such as the 777. "Boeing is really subsidized by the 747," says Terry L. Hall,

TO FRANK SHRONTZ, THE BLUE YONDER IS ANYTHING BUT WILD

Posted high on the wall at Boeing Co.'s 747 plant in Everett, Wash., is the sign: "We build legends." That's the legacy Frank A. Shrontz inherited when he became Boeing's chairman in 1988.

AS A '58 HARVARD MBA

But if Shrontz had his way, that sign might well be joined by another: "We raise profits." A Harvard MBA who is neither a pilot nor an engineer, Shrontz says his mission is raising Boeing's return on equity from the recent average of about 12%. Although Boeing makes money while its main competitors don't, Shrontz isn't satisfied. "We've got to enhance our earnings," he says.

The commercial aerospace business has changed in a decade of airline deregulation. Not only is Boeing facing increased competition from the European Airbus Industrie consortium, but its customers, many of them highly leveraged, have also become more interested in cost control and marketing than in pure performance. "They don't get misty-eyed over exotic technology," says a former Boeing executive. Shrontz, 58, is leading a generational shift in management to meet that challenge. Since 1987, four of Boeing's top six executives have retired. The current crop has an average age of 56.

Shrontz himself hit the fast track after a three-year stint at the Pentagon in the early 1970s. Serving first as Assistant Air Force Secretary and then as Assistant Defense Secretary, he proved himself a capable, fair administrator. Back at Boeing in the early 1980s, he ran the 737 program and later the entire commercial aircraft operation. It was a trying period: Boeing launched two planes at the same time, the 757 and 767. He won the CEO's job in April, 1986.

Running a company that built not only the 747 jumbo jet but also the B-52 bomber, part of the Apollo Saturn V moon rocket, and the Minuteman missile is a heavy load. Shrontz's two predecessors, Thornton A. Wilson and William M. Allen, were strong-willed industry legends who built revolutionary products for a pioneering age.

NUMBERS MAN. By contrast, Shrontz, a native of Idaho, is a quiet, cautious man. He enjoys skiing and pheasant hunting, but rarely does either. He prefers to spend weekends with his family puttering in the yard at a home on Puget Sound.

Shrontz keeps a keen eye on the bottom line. But some wonder if the chief executive is too cautious. Although the 777 is risky and expensive, it doesn't require the sheer gutsiness or vision the 747 did. "It's been a company that has been prepared to take huge risks," says one analyst. "The challenge is to keep taking them."

Shrontz's overriding concern, however, is making sure his 160,000 employees understand that success is fragile. "I must confess it's perhaps a little more difficult to do than in some industries because we have to convince our people there's a need to change and improve." In short, staying No. 1 isn't as easy as it looks.

By Dori Jones Yang in Seattle

STEVE FOX/FOTOS

general manager of Northwest Airlines Inc. in Minneapolis. Agrees Shrontz: "The backlog and stability that offers allows us to do a lot of things."

Indeed, with $675 million in profits last year on $20.3 billion in revenues, Boeing is making money while Airbus and McDonnell bleed. But while commercial losses and defense work cutbacks have led to thousands of layoffs in the last year at McDonnell, Airbus is chugging along. The reason: It's living off the benefit of years of government loans. That direct aid has slowed, but when Airbus suffers from currency translation losses, the West German government makes up the difference to the consortium's German partner. The U. S. is negotiating this month with the EC to stop such payments. "It's outrageous," says one U. S. trade official.

Airbus has hardly wasted the government support. In technology, the European consortium has clearly gained the upper hand. The 777, for example, probably will feature sophisticated "fly-by-wire," nonmechanical navigation, a system first used by Airbus. While Airbus loves to push the limits of research and development, Boeing goes only as far as it has to. Airbus was the first to introduce the two-person cockpit, fuel tanks in the tail, and composite materials in major structural areas. "Boeing always says these are bad ideas, and then adopts them five years later," snipes Stuart Iddles, Airbus' senior vice-president/commercial.

OVERSEAS PUSH. Boeing's position on technology is simple: If the customer wants it, give it to him. If not, don't add costs needlessly. With Airbus providing customers a glimpse of what's possible, they'll probably want more and more in terms of technology as time goes on. But Boeing's strength is figuring out a way to update and still make a profit. Says analyst Wolfgang Demisch of UBS Securities Inc.: "The mystery behind this business isn't building an airplane that flies and is safe. It's building an airplane that is salable and profitable."

Increasingly, the mystery is compounded by the challenges of a global marketplace. As the United battle rages, Boeing is also working hard overseas to get a foreign launch customer for the 777. Five of the program's eight target airlines are foreign: British Airways, Japan Airlines, All Nippon Airways, Cathay Pacific, and Qantas. The reason is simple: Boeing's exports worldwide grew 40% last year to $11 billion, as U. S. sales fell 8%. This year, exports will probably make up more than 54% of Boeing's projected $27 billion in revenue.

Selling overseas, however, means more than just product, price, and service. Politics also plays a big role. Asian countries tend to need long-haul aircraft such as the 747-400 or the 777 because they fly nonstop, high-density flights to Europe and North America. But many—including Airbus—suspect that carriers in such countries as Japan, Korea, and Taiwan buy from Boeing as a way of reducing their politically nettlesome trade surpluses with the U. S.

CABINS CAN BE REJIGGERED QUICKLY SO AIRLINES CAN 'GET WHAT THEY WANT'

PHIL CONDIT, HEAD OF BOEING'S NEW PLANE DIV.

Many foreign countries also have requirements, either legal or de facto, that aircraft manufacturers buy parts from their country if they expect orders from the national airline. Australia is the most explicit, with a 30% purchase requirement for every sale. Other countries, such as India and Algeria, insist that Boeing take payment partially in local commodities. Still others, such as Spain, have unwritten requirements: Spain's CASA, a 4.2% partner in Airbus, makes parts for Boeing as a tradeoff for Boeing sales to Iberia Airlines Inc.

Relations with the Japanese are the most lucrative. Three Japanese manufacturers make major subassemblies for the 767, and Japan's leading domestic airline, All Nippon Airways Co., is the largest operator of 767s outside the U. S. "I'm thoroughly convinced that Japanese investment in the 767 was a factor," says Lawrence Clarkson, Boeing's senior vice-president for government and international affairs.

On the 777, Boeing proposed taking its relationship with the Japanese one step further. It asked Mitsubishi Heavy Industries, Fuji Heavy Industries, and Kawasaki Heavy Industries to take a 25% equity stake in the project. The move raised howls in Washington among legislators and others who worried that a glimpse inside Boeing would provide the Japanese plenty of ammunition to eventually shoot down another U. S. industry. But Shrontz is more worried about Airbus getting into Japan than Japan taking over commercial aerospace. "We'd rather have them with us and on our team than against us," Shrontz says. Already, West Germany's Daimler-Benz, one of Airbus' parents, signed an agreement with Mitsubishi to cooperate on several transportation technologies.

As it turned out, the Japanese decided to be major subcontractors and share some of the development costs, but will take no equity. That might grease some sales in Tokyo, but it still leaves Boeing with heavy responsibility for financing development. And that raises the question: As the complexity and cost of aircraft development increases, are even Boeing's resources enough to go it alone? Building a cleaner, quieter SST is likely to cost as much as $12 billion. To make that kind of investment, Boeing might be wise to butter up the Japanese.

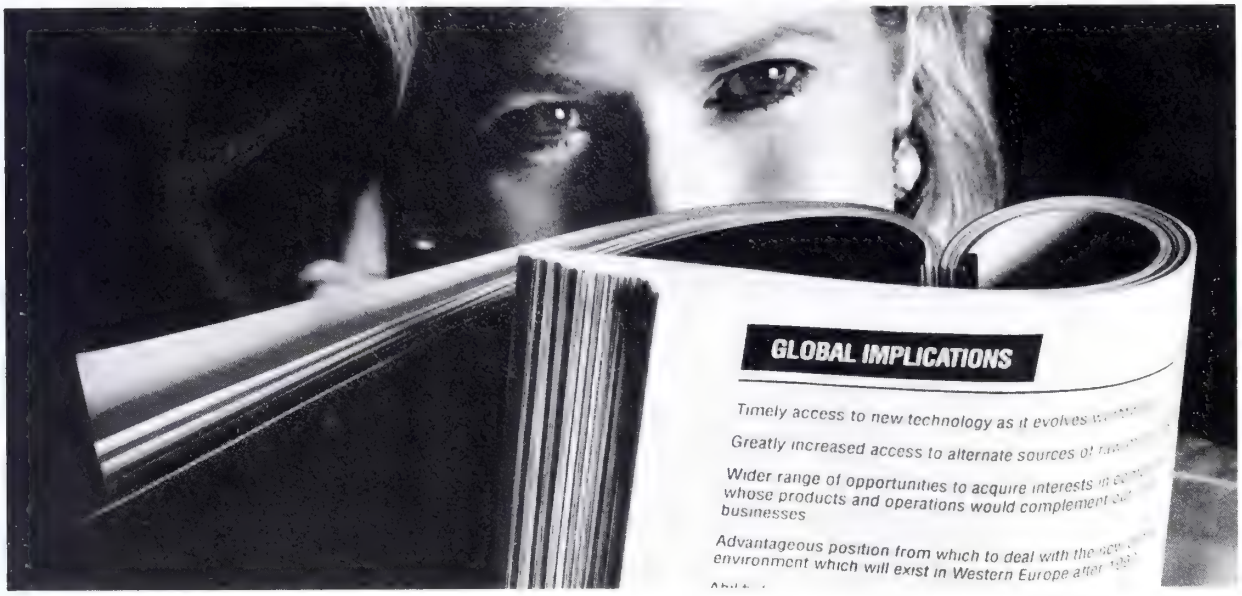
Rolling the dice, though, is a way of life in aerospace. "You can't be in this business and not take risks," says Shrontz. "But we need to be reflective before we take risks." Boeing's success will depend on how well it balances the risks with the rewards.

By Dori Jones Yang in Seattle and Michael Oneal in New York, with Stewart Toy in Paris, Mark Maremont in London, and Robert Neff in Tokyo

This may be
the very best idea
you've ever had.

Bells and whistles,
the works.

The one you
could ride all the way
to the corner office.



When it's important,
it belongs on
Hammermill paper.

An idea acquires a little more impact when you put it on Hammermill paper. A little more immediacy. Why Hammermill? It could be the sharp, down-to-business readability of our copier papers. The leading-edge look of our desktop publishing papers. Or the commanding quality of our bond papers. Hammermill makes just about every kind of business paper around. And every one has that air of importance that helps make sure what you have to say gets the attention it deserves.

HAMMERMILL PAPERS®

Where America
conducts its business.

© 1990 International Paper Company

INTERNATIONAL PAPER

HOW EUAN BAIRD IS PUMPING LIFE BACK INTO SCHLUMBERGER

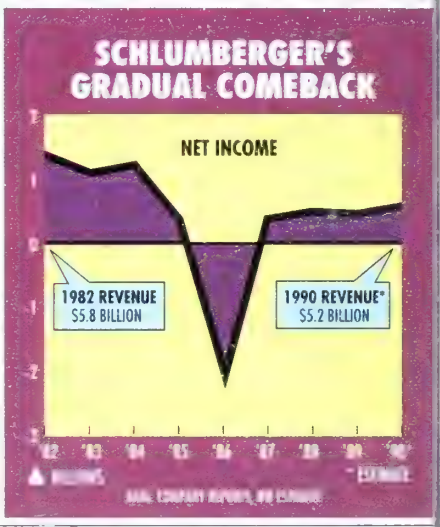
The giant of oil-field services is leaner, meaner, and regaining some of its former glory

About two years ago, D. Euan Baird, chairman of Schlumberger Ltd., attended the big annual trade show sponsored by the offshore drilling industry. Despite his 6-foot, 5-inch frame and his rank as head of the world's premier oil-field-services company, Baird moved anonymously about the Houston Astrodome, popping into competitors' booths and quizzing representatives about their products and services.

Schlumberger mirrors its chairman—low-key, confident, probing. But with oil exploration picking up, the company is once more starting to stand out. Schlumberger's first-quarter earnings jumped 56% over last year, and many analysts expect full-year earnings to be up more than 35%, to about $600 million. It's the kind of momentum that suggests that 1986, when Baird's predecessor was forced out and the company suffered a $2 billion loss, is ancient history.

Since taking over four years ago, Baird has refocused Schlumberger by selling Fairchild Semiconductor Corp. and two smaller businesses. The units were the remnants of a failed diversification. Oil-field services now contribute about 60% of the company's total $4.7 billion in revenues, while advanced technology and water, gas, and electric meters yield an additional $2 billion. Baird also spent $2.2 billion to buy back more than 60 million shares, or 20%, of Schlumberger stock. Most important, he spent more than $500 million to develop new oil-exploration technology, which he believes will preserve the company's 65% share of the $3 billion well-testing industry through the 1990s.

'GEARED UP.' Like everyone else in the oil patch, Schlumberger remains at the mercy of oil prices. Short-term spot prices for the West Texas intermediate grade of oil have yo-yoed between $24.20 a barrel and $15.06 a barrel in recent months. But some analysts say that rising oil consumption will boost prices to $30 a barrel by mid-decade. The number of rigs in use domestically has already increased 50% from its low of 663 in 1986. Baird, a 52-year-old Scottish geophysicist who spent 30 years rising through the oil-field-services side of Schlumberger, believes the oil industry is beginning an up cycle that will last well into the decade. "This short period where everyone perceived a glut forever is now over," asserts Baird. "The oil companies are beginning to gear up to find more reserves."



That would be good news for Schlumberger. Its high-tech measuring devices are used by drillers searching for new oil and gas. The instruments are less critical for developed wells. The distinction helps explain Schlumberger's heavy presence overseas. Some 35% of foreign drilling is exploratory, compared with just 10% in the U. S., where drillers tend to stick to proven fields. Only 32% of Schlumberger's $4.7 billion in revenues are generated in North America.

Foreign exploration is likely to increase as non-OPEC nations begin to worry about growing signs of the cartel's resurgence. Many, such as North Yemen, are offering oil companies incentives to explore within their borders. And the Soviet Union has enlisted France's Société Nationale Elf Aquitaine and Chevron Corp. to help boost flagging production in the northeast Caspian Sea region. "The key with Schlumberger is what's going on internationally, particularly with exploration," says Kenneth S. Miller, an oil-field-services analyst at Shearson Lehman Hutton Inc.

Despite better economic conditions, Schlumberger faces tougher new competition. The biggest threat is Halliburton Co., which bought Schlumberger's top competitor, Gearhart Industries Inc., in 1988. Another new rival is Western Atlas International, a joint venture between Dresser Industries and Litton In

BAIRD: SPENDING $500 MILLION TO DEVELOP NEW OIL-EXPLORATION TECHNOLOGY

tries. "This is going to be a three-
industry," says Herbert M. Ryan,
d of Dresser's investor relations.
hat competition has helped squeeze
lumberger's operating margins on
ield services from an estimated 45%
982, when the company earned a rec-
$1.3 billion, to 12% last year, when
nings were $441 million. Although an-
t Miller expects the company's mar-
s to rise to more than 20% in the
y 1990s, their 1982 peak will remain
nd memory.
aird is counting on Schlumberger's
-tech advantage to position the com-
y above the fray. Schlumberger re-
tly introduced its new Maxis 500 sys-
for testing and measuring wells.
ustry analysts expect that the new
ducts will once again put some dis-
e between the company and its com-
tors (box).

SOLUTELY' HAPPY. It has been a slow
painful recovery for a company that
e could do no wrong. In 1983, its 20
rs of extraordinary uninterrupted
wth under patriarchal Chairman Jean
oud earned it plaudits as the world's
t-managed company. Then oil prices
mmeted, the patriarch died, and
lumberger was forced to show how
best fared during the worst of times.
oud's successor, Michel Vaillaud, was
ted by the board in 1986, a year after
took over, and replaced by Baird,
became the first non-Frenchman to
the company since its inception in
9. That same year, Schlumberger suf-
ed its first loss since going public
962.
he events of 1986 have prompted
ch speculation. People involved in the
ode say the Schlumberger family,
ch owns about 25% of the stock and
three representatives on the board,
s behind the ouster of Vaillaud. For-
board member and family represen-
ve Georges de Menil says that the
ily is "absolutely" happy with Baird.
day, the company is doing what it
ws how to do," he says.
Vall Street agrees. Recently trading
58, Schlumberger's stock was up 50%
m a year earlier, compared with an
rise in the Standard & Poor's 500-
ck index. Since beginning its buy-
ks in 1985, when the shares were 35,
lumberger has earned a paper profit
$1.4 billion on its investment.
Vhether the company's stock keeps
bing depends largely on the price of
But as it heads into the 1990s,
lumberger is a leaner, more tem-
ed company. And with its high-tech
antage and international strength,
a fair bet that Schlumberger, like its
ky chairman, will stand a bit taller
n the competition.

*By Bruce Hager in New York, with Jerry
rner in Paris*

JOURNEY TO THE CENTER OF A GUSHER

Schlumberger Ltd. has been the leading tester of oil and gas wells ever since brothers Conrad and Marcel Schlumberger performed the first electrical measurement of a well in France back in 1927. Today, well testing is the high-tech heart of Schlumberger's oil-field services, contributing more than 50% of the division's $2.7 billion in revenues. So there was considerable interest in the oil patch when the company unveiled its new Maxis 500 system last March.

Maxis—for "multitask acquisition and imaging system"—is a series of nine tools linked to an above-ground unit. Each device has a powerful microprocessor, and some translate data into readable images of rock formations outside the borehole of a well thousands of feet deep. They can relay that information at 500 kilobits per second—about five times as fast as standard equipment. That means the transmission is clearer, helping to give above-ground engineers a better readout of what's around the borehole.

That's important, because unlike in the movies, only 1 in 10 productive wells produces a gusher. In most cases, drillers put equipment attached to a line down a well hole and take measurements as the equipment is pulled slowly back up. The resulting images are displayed on video terminals, and these, along with fluid samples, can help tell an engineer when an oil company has sunk an exploratory well into an oil or gas reservoir.

'STUNNING.' Standard measuring equipment uses radiation, acoustic, and electric probing to produce graphic pictures of the area up to six feet around the borehole. Maxis uses the same processes but can give Schlumberger's engineers a crisp image up to 30 feet outside the borehole. The company expects to be operating 70 Maxis units for drillers by yearend and over 1,000 by mid-decade to replace its old Cyber System Units, introduced in 1975.

Although Schlumberger expects Maxis to remain state-of-the-art well into the 1990s, competitors expect to match the new unit. "Technology is moving very quickly," says Guy Marcus, a spokesman for Halliburton Co. in Dallas. "We feel that our Halliburton Logging Services will have comparable or better technologies in the marketplace within the year." One customer disagrees: "The other firms are very good, but they aren't the leaders in the industry that Schlumberger is," says an oil-company executive.

More potential competition might come from a technology called logging-while-drilling. To use Maxis, oil companies have to pull the drill bit and pipe out of the well to make room for the tools in the borehole, which can take hours. But some companies, including Schlumberger, have instruments at the end of the drill pipe that give readouts while a well is being drilled. The process is somewhat crude and slow, however, with data being relayed at three bits per second instead of the 500-kilobit rate relayed by Maxis.

Schlumberger's critics also contend that the company's proprietary software system forces oil companies using the technology to spend thousands of dollars to analyze Schlumberger's data. The company says it's working to make Maxis software easier to use. In the meantime, Schlumberger's leading-edge technology will help it pump big profits out of the hunt for black gold.

By Bruce Hager in New York

LAURE DAUNIS/BW

STRATEGIES

SAWYER: HIS BIGGEST CHALLENGE WILL BE CONVINCING THE FDA THAT PAR HAS FOUND RELIGION

'THIS IS GOING TO BE A RESPECTABLE COMPANY'

Kenneth Sawyer battles to save troubled Par Pharmaceutical

As a Philadelphia homicide investigator during the early 1970s, Kenneth I. Sawyer had his share of tough cases. The Philadelphia Museum of Art case he investigated began when a young man's body was fished out of the museum's reflecting pond. Sawyer, who traded in the gumshoe routine for a business career and now runs Par Pharmaceutical Inc., still deals with life-and-death questions. But now the potential victim may be his own company.

In September, Sawyer became chief executive at Par, a Spring Valley (N. Y.) maker of 100-odd types of generic drugs. Since then, he has fought to keep Par above water. He slashed a 1,000-member work force in half, brought in new auditors, and hired fresh scientific talent to oversee operations. By the end of this summer, Sawyer promises a rejuvenated Par. "This is going to be a respectable company again," he vows.

BILLS, BILLS, BILLS. Par's descent into disrepute started in 1988, when the company and two of its top officers pleaded guilty to providing an "unlawful gratuity" to federal Food & Drug Administration officials in charge of generic-drug approval. It was one of the first revelations in what evolved into an industry-wide scandal. Both executives resigned, and the company paid a $400,400 fine.

Par is still the target of a grand jury investigation by the U. S. Attorney's office in Baltimore. It centers on whether the company doctored records related to its product development. In its latest filing to the Securities & Exchange Commission, Par said that "it is probable" the investigation will result in "one or more felony charges." Sawyer says Par is cooperating with investigators and hopes to reach a settlement.

The legal woes hardly stop there. Par is one of six defendants in a civil suit brought by rival Mylan Laboratories Inc. The suit alleges that Par and others conspired with FDA officials to keep Mylan's drugs from being approved, and it seeks $200 million plus treble damages. Sawyer says he'll fight the suit, which could drag on for years and add millions to Par's $5 million-plus legal tab so far.

Par's tumble from stardom in the $4 billion generic field has been dramatic. Before the scandal fully broke in 1989, it had $100 million in sales and $11.1 million in profits. It now has negative cash flow and posted a $5.6 million loss on $32.2 million in revenues, off a stunning 44%, for the six months ended Mar. 31. Sawyer is negotiating with MidLantic Bank to extend Par's credit line. And he has retained Merrill Lynch & Co. to scout out a possible minority investor.

Sawyer comes well-equipped to clean up Par. After his stint on the homicide squad, the 44-year-old attorney spent 14 years in the generic-drug business. His experience and credibility have helped retain customers such as giant drugstore chain Walgreen's. "He has brought a whole new regime in over there, and the place is finally being run like a real company," says Norman Genzer, a vice-president at Drug Guild Distributors Inc., a drug wholesaler and Par customer.

NO NEW DRUGS. Sawyer's biggest challenge, though, will be to convince the FDA that Par has found religion. Par is on the agency's "alert" list, which prohibits it from any new drug approvals. Those approvals are crucial, because without new generic copies of brand-name drugs, Par's profits could be choked off. Why? When a drug goes off patent, the early generic copies can often command as much as 60% of the branded price. But as more generics come along, companies often have to settle for just 20%. Par hasn't had a new generic approved since November, 1988.

To break the logjam in Washington, Sawyer regularly jets off to meet FDA officials. In March, he announced a voluntary 10-step program to raise manufacturing standards. This month, he bought out the minority owners at Par's 60%-owned subsidiary Quad Pharmaceuticals Inc., where Sawyer found production and record-keeping troubles earlier this year. He has pulled its drugs off the market. That smarts, since Quad represented about 50% of sales last year. Sawyer says Quad's products will also be back by summer's end.

If Sawyer can fix Par and get its stock price up, he stands to be handsomely rewarded, thanks to stock options. Can he do it? Well, he caught the Art Museum killers, whose motives turned out to be robbery.

By Brian Bremner in Spring Valley, N. Y.

WHAT TO DO WHEN YOUR FAMILY OUTGROWS THE LOTUS.

THE TURBO WAGON
by Volvo

CALL TOLL FREE FOR YOUR CATALOG OF 1990 VOLVOS: 1-800-221-9136. © 1990 VOLVO NORTH AMERICA CORPORATION.

SHIPBUILDING

FOR SHIPBUILDERS, IT'S FULL SPEED AHEAD

There's a surge in world orders—but few for the U.S.

PepsiCo Inc. may have seemed to be taking a careless risk in April, when it agreed to pay $254 million for 10 Soviet merchant ships as part of a deal that will let it sell more Pepsi in the Soviet Union. The company's plan is to resell the ships in the West, even though everyone knows that demand for vessels has been as flat as a week-old glass of soda. But Christoph W. Adamski, vice-president for world trade at Pepsi-Cola International Ltd., says he knew what he was up to: "We're very bullish on the shipbuilding business."

Indeed, ship orders suddenly are more bubbly than they've been in years. "There are a lot of rustbuckets out there," says Bruce Roscoe, a ship analyst in Tokyo with S. G. Warburg Securities (Japan) Inc., and they're ready to be replaced. Concerns over structural soundness drive up ship maintenance and insurance costs dramatically after 15 to 18 years, and analysts estimate that 65% of the world's fleet is at or near the replacement point. Lloyds Maritime Information Services in London forecasts that 20,000 ships will be built during the 1990s, up from 6,000 in the 1980s.

KEELHAULED. As of March, world shipyards had orders for 1,655 ships, a 54% increase in just one year, says Fairplay Information Systems, a British research company that tracks the industry. The estimated value of ships on order is about $50 billion. In the first quarter of this year alone, a record 336 ships were ordered. And with capacity strained, prices are soaring. A typical 250,000-ton tanker, one big enough to hold 75 million gallons of oil, will likely go for more than $100 million soon, up from $40 million in 1985.

The industry's turnaround has grabbed the attention of investors. John R. Hickling, manager of two overseas mutual funds for Boston giant Fidelity Investments, recently put about $1 million into shares of Sasebo Heavy Industries Co., a midsize Tokyo shipbuilder. And he has been scouting ou further shipyard investments in Japan Korea, and Singapore. Other Fidelity funds have bought shares in Breme Vulkan, a West German yard.

Most of the new construction is going to such Japanese industrial conglomerates as Mitsubishi Heavy Industries Ltd and Hitachi Zosen Corp. The Japanese companies got keelhauled in the 1980s when a world slump in demand caugh their shipyards overstaffed and over built. They cut capacity by half from 1980 to 1988, while also slashing employment by half, to just 23,000.

But now, they're back with a ven geance. Japan led the world market with a 36% share of orders logged as o Mar. 31, vs. 22.6% for archriva Korea, where shipbuilders have been plagued by rising labor costs and currency rates And in the fiscal year ending next March, Japanese companies expect to be back in the black in shipbuilding for the first time since the early 1980s. As Japan's shipyards bump up against capacity limits, however, new orders are spilling over to the Korean builders.

QUEUE OF ORDERS. European companies fear that Japan wil start reopening yards to gra more business. That, contends Werner Fante, director general of the Association of Western European Shipbuilders could turn the boom into a bust again by the late 1990s To avoid that, the Japanese government is telling shipbuilders not to increase capacity by opening idle yards "They'd rather that everyone line up in a queue and spread the orders over the next 1 years," notes Keith Donaldson, shipping industry analys with James Capel Pacific Ltd

That gives the Soviet Union and Eastern Europe mor hope of bagging new order and of earning hard currenc to invest in their ailing econo mies. PepsiCo's Soviet shi deal was part of a $3 billio barter agreement, in whic Pepsi won the right to us hard currency it earns fro ship sales to expand Sovie bottling plants and open tw Pizza Hut restaurants in Mos cow in August. Pepsi and it partner, Norwegian-owne

IN NEW ORLEANS: U.S. YARDS WILL SUFFER FROM NAVY CUTBACKS

THE WORLD LEADERS

SHIPS ON ORDER WORLDWIDE: 66.2 MILLION DEADWEIGHT TONS

Global share of shipbuilding orders as of Mar. 31, 1990, measured by cargo capacity

JAPAN	36.0%	SPAIN	3.4%
SOUTH KOREA	22.6	TAIWAN	2.9
BRAZIL	5.4	CHINA	2.6
DENMARK	5.0	WEST GERMANY	2.3
YUGOSLAVIA	4.0	U. S.	0.1
ITALY	3.8	REST OF WORLD	11.9

DATA: FAIRPLAY INFORMATION SYSTEMS

J&B in a hip joint.

J&B Scotch Whisky. Blended and bottled in Scotland by Justerini & Brooks, fine wine and spirit merchants since 1749.
To send a gift of J&B anywhere in the U.S., call 1-800-528-6148. Void where prohibited.

J&B Blended Scotch Whisky, 43% Alc. by Vol., Imported by The Paddington Corporation, Ft. Lee, NJ © 1990

shipping firm Framshipping, sold seven Soviet ships in the West in a previous deal. Adamski won't talk about how well the partners did, but says: "We didn't lose money." Yugoslavia and Poland also are competing for bids, with mixed results. For instance, Barbara Piasecka Johnson, widow of a Johnson & Johnson heir, may be failing in her effort to revive Poland's Gdansk shipyard.

Except for Pepsi, U. S. companies may not do well either. At a May 31 meeting in Paris, U. S. trade officials failed to win a hoped-for agreement to end the shipbuilding subsidies, averaging 20%, that most foreign governments provide—including Japan and Korea, the U. S. claims. Subsidies haven't existed in the U. S. since 1981, when the Reagan Administration abruptly ended $200 million a year worth of them. As a result, only 14 U. S. shipbuilders remain open, down from 57 in 1982. And they survive on Navy orders, which are likely to fall because of defense cutbacks. Nearly 90% of the Navy's work goes to just five shipyards. Only one new commercial order has been placed with a U. S. yard in the past four years.

LIMPING ALONG. Several builders, including George Steinbrenner's American Ship Building Co. in Tampa and Bethlehem Steel's Sparrows Point yard in Baltimore, are limping along. "If the overseas subsidies continue, there is no way U. S. shipyards can compete," says David H. Klinges, president of Bethlehem Steel Corp.'s shipping division.

Still, some U. S. yards are trimmer than they have been in years. Reflecting hard times, their labor rates now are lower than Europe's and about equal to Japan's. Another ray of hope: As part of its environmental drive, Congress is expected to mandate double bottoms and hulls as spill protection for oil tankers plying U. S. waters. U. S. builders hope that the rise in demand will so overwhelm other yards that buyers will pay American prices—up to 30% higher than overseas—to get ships early. Insists Jerry St. Pé, president of Litton Industries Inc.'s Ingalls Shipbuilding yard in Pascagoula, Miss.: "We are going to be positioned to play in the game."

That's a long shot at best. Last year, the Shipbuilders Council of America filed a complaint with the U. S. Trade Representative against Japan, Korea, West Germany, and Norway seeking an end to subsidies. The council is considering expanding its complaint to include Italy, Spain, and France. But John J. Stocker, president of the council, worries that it could take years for relief to come. That's why a soft-drink giant may be America's best hope for cashing in on the shipbuilding boom.

By Seth Payne in Washington, with Karen Lowry Miller in Tokyo

CAN THIS HOT-RODDER MAKE HONDA RACY AGAIN?

New President Kawamoto is out to restore its innovative edge

When Honda first entered Formula One racing back in 1964, it sent rookie engineer Nobuhiko Kawamoto out onto the circuit with the fledgling team. Although Kawamoto had a lifelong affection for cars—plus a master's degree in mechanical engineering—he struggled at first. The engine he helped design would often stall and sometimes failed to start. He didn't do much better in the pits. Kawamoto remembers mishandling measuring instruments and taking half a day to replace a car's oil pan, much to the amusement of the British mechanics watching him scramble. "There was a lot of yelling," he recalls with a wince. "When I think of those days, I can only laugh."

Today, if he falters, it's no laughing matter: After spending his entire professional career in Honda's independent R&D subsidiary, on June 28, Kawamoto was elevated to the presidency of Honda Motor Co. Faced with a flat market and criticism that Honda has lost its edge, the company's board is betting that Kawamoto, 54, is the man to revive its image as a leader in engineering and sporty styling.

KAWAMOTO: "I CAME TO HONDA TO MAKE THIS CAR"

Kawamoto won out over Shoichiro Irimajiri, who many thought was the leading contender to replace the 58-year-old Tadashi Kume as president. Irimajiri, 50, is a former chief of manufacturing in the U. S. But Kawamoto's appointment shouldn't have been a great surprise. Starting with founder Soichiro Honda in 1946, the company has always been run by an engineer who shares the front seat with a management-savvy partner. This time, it's a team of three, with Irimajiri handling research and manufacturing and Yoshihide Munekuni, 51, adding his expertise in sales and finance.

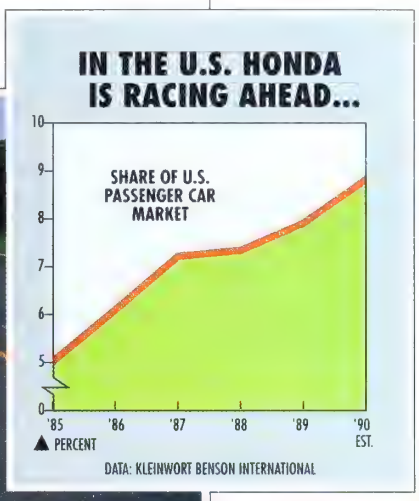
Honda built its reputation by hiring fresh engineers who love cars and letting them loose at the drawing board. In the '70s, it cruised past other second-tier makers such as Mazda Motor Corp. to become a distant No. 3 in Japan behind giants Toyota Motor Corp. and Nissan Motor Co. It captured many of the fashion-conscious drivers who crave a new look, and it now sells more cars in the U. S. than any other foreign supplier.

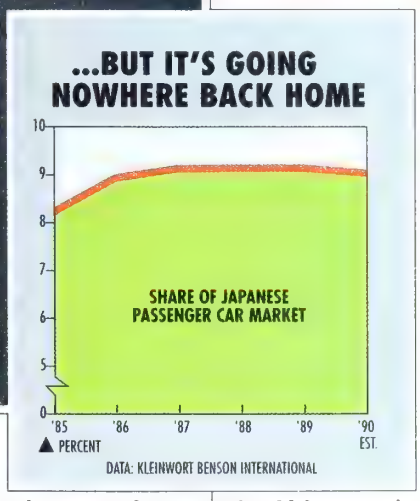
But lately, the going has become tougher. Last year, Honda's consolidated net income tumbled 16%, to $517 million, even though sales jumped 10.4%, to $24.39 billion. And while Honda continues to make gains in the U. S.—its Accord was the nation's top-selling car last year—the much-larger Toyota is closing

n its bumper. This year, analysts nate, Toyota will have about 8.5% of J. S. passenger-car market, vs. Hon- 8.8%. And some auto analysts sug- that Honda may be too small to uce a broad range of cars that can ete for buyers at all levels.

ut Honda's biggest problems may be home. The company missed out n Japan's economy took off in the 1980s and sporty cars became a sta- symbol among newly rich Japanese. market share in Japan has leveled at around 9.1% and may even fall ewhat this year, leaving it way be- Toyota's 32.5% and Nissan's 18.1%. n the 1990 Accord debuted, auto azines praised its performance but cized the styling as "unadventur- ' Concedes Ka- oto: "This is a of confusion."

obody expects a ch at the top to a panacea. But , Kawamoto isn't the sort of man wants to steer the company alone. ke resigning President Kume, a de- oriented executive who oversaw da's push into the American market, amoto says he plans to set targets then step back to give his partners n to work out the logistics. Says Iri- ri: "Kawamoto is much more open- ded" than Kume.





He's also a dreamer. When not immersed in a project at work, Kawamoto spends nearly all of his free time tinkering under the hood of a car or scratching out new engine designs on a sketchpad. He has lots of energy, and he'll need to harness all of it to nurture a maturing company and, at the same time, recapture the excitement of innovation and entrepreneurship. Says Toshiaki Yasuda, a general manager at Nissan: "I think Kawamoto is the right choice, and that means tougher competition for us."

Kawamoto's strategy: make regional operations as independent as possible to meet individual market needs. Honda will unveil a sweeping program for decentralizing its global operations in early July, but Kawamoto is playing it close to the vest. "We have to cut and make it simple," he says, slashing the air with his hand.

For now, Kawamoto reserves his highest hopes for Honda's new Acura NSX, a flashy aluminum-body sports car that's supposed to rekindle the imaginations of young drivers. Equipped with Honda's innovative V-TEC engine, which boosts horsepower without a turbocharger, the NSX will roll onto U. S. dealers' lots this August with a $55,000-$60,000 price tag. "I came to Honda to make this car,' Kawamoto beams, nosing a silver model onto the test track. A new Acura Legend also comes out this fall, and an Accord Wagon—the first Honda to be developed and produced in the U. S.—should be on sale early next year. Plus, the Civic and Prelude will get model changes for 1992.

Kawamoto has always felt most at home with grease under his fingernails. When he was 18, he bought his first car—a used Crosley two-seater Hotshot—with $65 scrimped from part-time jobs. He went on to Tohoku University, a national university that is well-regarded in the sciences, where he got bachelor's and master's degrees in mechanical engineering. After seven years of designing racing engines for Honda, he rose to chief engineer at Honda R&D and helped develop the breakthrough CVCC engine. That engine was the first to meet stringent antipollution standards set by the Clean Air Act of 1970—without a catalytic converter—and it launched Honda's reputation in the U. S. for innovative technology.

Today, Kawamoto lives with his wife, Yoko, in the traditional wooden Japanese house where he was born. It is nestled behind walls in a quiet neighborhood on the edge of Tokyo, with a well-tended garden of trees and flowers designed to bloom in every season. Their two children are in college.

NO FRILLS. At headquarters, Honda executives have none of the trappings of the Detroit elite. Kawamoto has no private office, no personal chauffeur, not even a guaranteed parking place. Kawamoto often takes the subway to work. When he drives his silver 1987 Legend that he bought out of his own pocket, he says he bribes the garage attendant with American beef jerky to assure himself a spot.

Co-workers say Kawamoto epitomizes the logical, rational engineer—until he gets behind the wheel. In 1988, he tried a jump in a dune buggy in the California sand dunes, injured his spine, and wound up in a cast for three months. Kawamoto deftly avoids confirming how many speeding tickets he has collected but confides that when stopped by police in the U. S., he always gets away by pretending he can't speak English.

Despite his quick grin and hearty laugh, he can be tough. More than a few engineers have felt the sting of a Kawamoto tongue-lashing. "He hates people who give up easily," says Takeomi Miyoshi, an executive chief engineer who has worked under him for 18 years.

Now that he has reached top management, Kawamoto resolves to temper his obsession with work and take more time to enjoy his family. To relax, he takes late-evening walks with his wife. Most Sundays, they get up at five to beat the traffic, put the top down on their cherry-red 1957 Triumph TR3, and head for the mountains at top speed. Kawamoto has also fed a passion for classic cars by buying a silver 1964 Porsche and a 1935 Lagonda, both being restored overseas.

"As the effect of your decision-making becomes bigger, it's important to keep your mind calm," says Kawamoto. But that doesn't mean slacking off. "My father said: 'If you want something, chase it.' I chase cars."

By Karen Lowry Miller in Tokyo

CHARTS BY ALBERTO MENA/BW

U.S. BROKERS' STOCK IS RISING ON THE TOKYO EXCHANGE

Complex trading strategies are helping American firms make strides with Japanese investors

On Wall Street, Shearson Lehman Hutton Inc. has seen better days. Through overexpansion and ill-fated ventures in areas such as junk bonds, the brokerage's fortunes have declined. But in Tokyo's Kabutocho financial district, the American Express Co. subsidiary stands tall. The firm's revenues from trading profits and commissions doubled in the past year, and Shearson has beefed up its Tokyo staff by 60%, to 350.

Shearson's Japanese triumph is typical of a phenomenon that is likely to have a lasting impact on both the U. S. and Japanese securities industries. In a manner that was unforeseeable a few short years ago, U. S. firms are gaining an expanding presence in the tight-knit world of Japanese finance. They are doing so not only by peddling blue-chip stocks to Japanese money managers, as in the past, but by introducing snazzy options and futures trading strategies that the doyens of Tokyo find profitable—but sometimes resent.

The roster of firms that have gained significant foothold in Japan is hardly a surprising list. Apart from Shearson, the five leaders are, in rough order of revenues, Salomon Brothers, Morgan Stanley, Goldman Sachs, Merrill Lynch, and C. S. First Boston (chart).

BIG FOUR. In the Japanese fiscal year that ended on Mar. 31, these top six U. S. brokers in Tokyo realized revenues of roughly $1 billion. By far the largest is Salomon, the leader in both commission revenues and trading profits. While comparable figures for the previous year were not reported to the Ministry of Finance, available statistics indicate that revenues are running way ahead of last year, with Shearson showing the largest percentage gain.

In fact, the reported numbers probably understate the volume of U. S. business in Japan, where tax rates as high as 70% discourage foreign firms from reporting income. Most cross-border fee business, such as orders to buy U. S. securities or underwritings of Japanese debt issues in London, never surface as local revenues in Japan. "Income does not actually equal the business we're doing," one top U. S. brokerage official concedes.

To be sure, the Tokyo Stock Exchange has not exactly faced an American invasion. The Japanese securities business is still dominated by the Big Four—Nomura, Daiwa, Nikko, and Yamaichi. And foreign firms' overall share of the trading on the TSE remains relatively small—7.3%. But that's five times the paltry 1.5% of trading by non-Japanese firms barely four years ago. Moreover, during that time, there has been a sea change in the way U. S. firms make money.

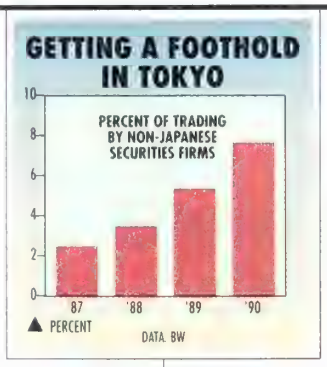
When Japan opened its financial markets to overseas firms in 1985, the emphasis was on buying and selling U. S. stocks for Japanese money managers and dealing in Japanese stocks for U. S. customers. Today, new products and trading techniques are helping foreign houses gain a competitive edge. In particular, Morgan Stanley Japan Ltd. an Salomon Brothers Asia Ltd. are elbow ing their way past Japanese firms b marketing complex Wall Street tradin strategies to local customers. "We wan the sophisticated institutions. That' where we compete," says Deryck C Maughan, Salomon's branch manager i Tokyo.

Since 1988, when inde options and futures were in troduced in Japan, U. S. bro kers have been teaching investors ne ways of hedging stock portfolios. "The have knowhow the Japanese brokers d not have," says Nippon Life Insuranc Co. fund manager Hironobu Hagio. Fo eign brokers also have built up a loy following of investors eager to prof from index arbitrage, which takes a vantage of the price gaps that briefl appear between Japan's cash and f tures markets.

Such trading has helped catapult Sal

Brothers Inc. into the Tokyo big ues. The firm has beefed up its pro- tary-trading staff by 50% in the past , with the addition of six traders. A comer to the TSE, Salomon is now among all foreign brokers and 11th ll securities firms in stock trading. vy program activity drove Salomon's e of total volume past 10% on one last December. Salomon also leads firms, including Japanese broker- , in the Japanese government bond ion. Its share of that business was last year, thanks largely to the 's hard-driving chief trader, Shigeru gar" Myojin. Big U. S. brokers are boosting their capital in Tokyo to ole them to take larger market posi- s. Morgan Stanley & Co. doubled its tal level, to $150 million, in 1989. But mon still towers over other foreign ers with $500 million in capital.

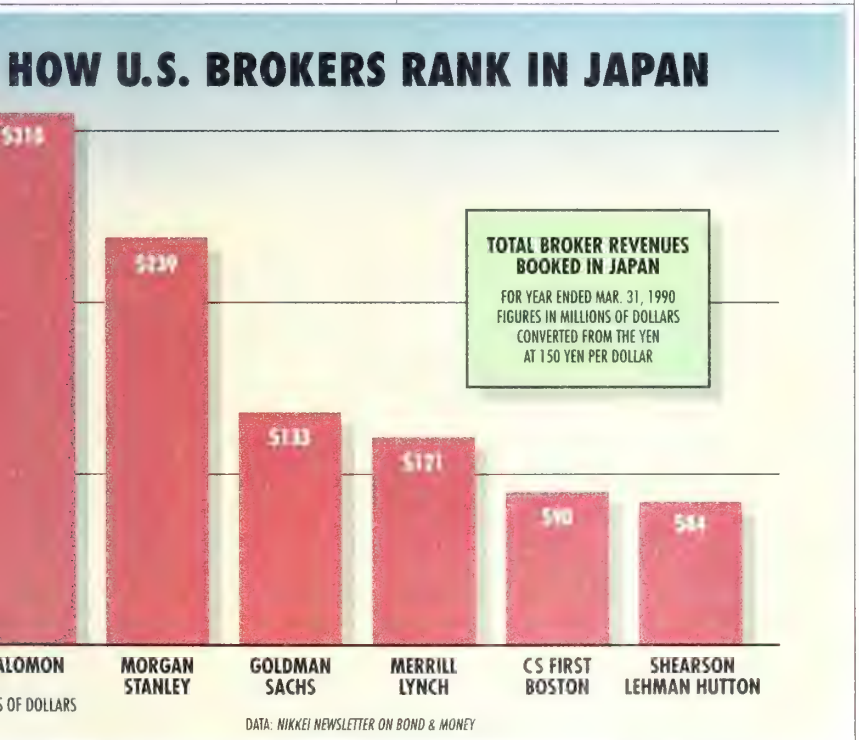
ORS? Finance Ministry and TSE offi- s profess to welcome Salomon's ng showing in the equity and bond kets. But the rapid shift toward arbi- e and trading in options and futures led some officials to worry that the s are going too far. In late Febru-


GETTING A FOOTHOLD IN TOKYO

Four would be to force the foreign brokers out of arbitrage and back to regular old commission trading," one U. S. brokerage official complained at the time.

Japanese regulators have even tried to clamp down on the popular Nikkei put and call warrants, traded in the U. S., which bet on moves in Japanese stocks. In April, arguing that the warrants were somehow causing volatility on the exchange, TSE officials quietly pressured U. S. firms to stop issuing them. Securities executives scoff at the TSE's claim, but, not wishing to antagonize the Japanese, they haven't made a fuss. "There was an enormous amount of negative publicity in Japan over nothing," says one brokerage executive in New York, who requested anonymity.

With small index arbitrage units and almost no trading of stocks for their own accounts, Japanese firms have little to lose if Japan clamps down on such activity. Fat fixed commissions have


HOW U.S. BROKERS RANK IN JAPAN

DATA: NIKKEI NEWSLETTER ON BOND & MONEY

as a futures-contract expiration ned and threatened to spark a round program trading, finance officials ed on Salomon, Morgan, and others urb their program trades. Tensions as Japanese newspapers alleged program trading by foreign brokers forcing the Nikkei average down. t was denied by executives of U. S. ns, who felt such allegations were g spread by jealous Japanese bro- s. "The ultimate victory for the Big

made for easy profits in the home market, but commissions are gradually dropping in Japan. And Nomura and others have made little headway in the U. S. Says one U. S. brokerage head in Tokyo: "The Japanese brokers are domestic and commission-driven, and that's not the wave of the future."

Despite their complaints, Japan's big houses are trying to make up for lost time. In March, Nomura's U. S. unit hired away Joseph R. Schmuckler, head of customer program trading at Kidder, Peabody & Co. It also raided Salomon, wooing a top arbitrage specialist, Michael A. Halem, with a multimillion-dollar salary package. Revving up Nomura's U. S. trading effort is the main objective behind the headhunting. As it builds up a staff and draws on lessons learned in the U. S., American executives in Tokyo anticipate tougher competition in derivative trading in Japan. "Nomura is going flat out to build a first-class equity trading capacity," says Maughan.

Other U. S. firms have found niches apart from trading. Traditional emphasis on research has paid off at Goldman, for example, thanks to a sudden shift toward small companies listed on the TSE and the Japanese over-the-counter market (BW—May 21). Meanwhile, Merrill Lynch Japan Inc. is expanding its retail network to six branches, catering to wealthy individuals.

'MAKING A MISTAKE.' Alas, some U. S. firms have had a tougher time than Salomon and Morgan. The efforts of C. S. First Boston (Japan) Inc. to forge ahead in options and futures trading and corporate finance have been hampered by the loss of two key staffers, one of whom took the entire yen bond trading desk with him. Prudential-Bache Securities Inc. in Tokyo is also having problems. It lost 15% of its staff this year, including the heads of fixed-income trading and investment banking.

Indeed, all brokerages in Japan will find it tougher to make a yen from their more traditional activities. In June, the TSE cut the commission on trades for institutions by 5%, with the cuts on big trades as large as 25%. Meanwhile, underwriting fees on Eurobond and other issues may shrink, because of a deal by the Big Four to keep the new-issue market shut until this month. Japan's high interest rates are also luring big Japanese investors away from U. S. equities. Says Salomon director Dwight L. Barker: "Any U. S. firm which is sitting back and lighting a cigar with a 1,000-yen bill is making a mistake."

But none of this is fazing Salomon. This fall, it moves to three floors of a new building at the heart of Tokyo's financial district. Salomon's new trading floor will seat 270, not quite rivaling its fabled New York digs, but still impressive. And the firm should have a good viewpoint from which to watch the competition. On all of the building's remaining floors, Salomon will have a familiar neighbor—Nomura.

By Ted Holden in Tokyo

CHARTS BY ALBERTO MENA/BW

PEOPLE

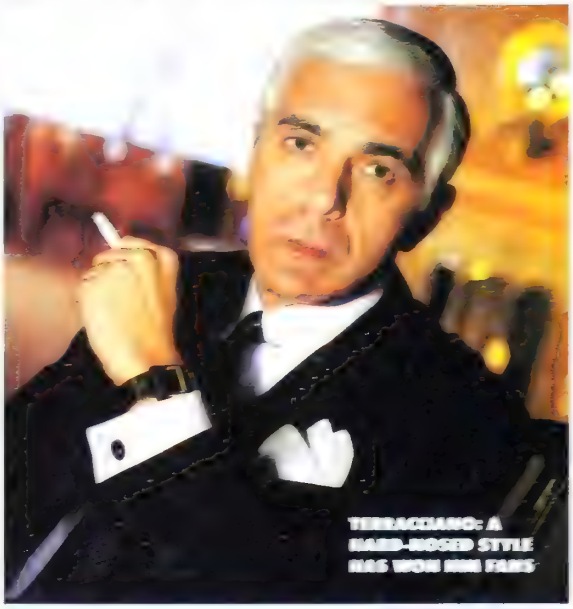
JUST HOW TOUGH IS TONY TERRACCIANO?

With real estate flagging, First Fidelity's CEO has his hands full

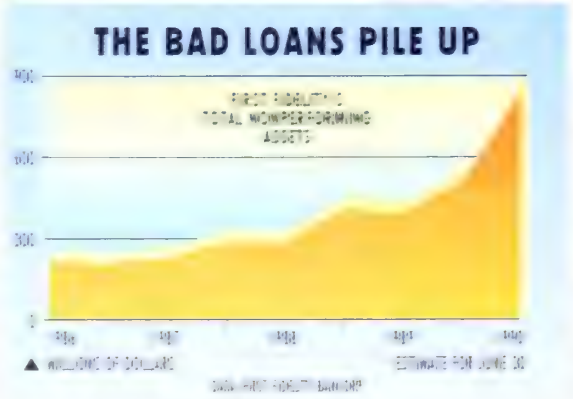
W

STREET ADMIRERS

HOMIE SWEET BAYONNE



TERRACCIANO: A HARD-NOSED STYLE HAS WON HIM FANS



Commentary/by Chris Welles

TRUMP MAY TEACH THE BANKERS SOMETHING YET: CAUTION

ow that Donald Trump's bankers have agreed on a plan to rescue him from almost certain kruptcy, many of them are begin- g to reflect on how they ever got ght up in such a mess. Make that expensive mess. The package of v loans and interest deferrals, which es the banks virtually complete con- l of his finances, will permit an or- ly liquidation and restructing of mp's crumbling empire. But some ders concede that the sales may not se enough money to cover the $2 ion in bank debt. Some banks may fer substantial write-offs.

Bankers rushed into plenty of foolish ns during the high-flying 1980s. But mp: The Debacle stands apart. It's autionary tale to write into every k spreadsheet program when the dit cycle turns up in. Rarely have big- gue bankers been so ling—nay, eager—to s standards of pru- ce to the wind. In ticular, the bankers ed to make sure that h new loan to mp was adequately ked by collateral. er all, wasn't one of erica's most glamor- young moguls good it?

SECURITY. Not quite. be sure, some lend- have senior, well- ateralized positions such healthy proper- as Trump Tower l will come out ole. But others, notably Citibank l Bankers Trust, which aggressively ght Trump's business in recent rs, are in weaker positions. Several ks advanced Trump hundreds of lions of dollars with no security oth- than his personal guarantee. One h loan for $35 million was made as ently as May. Other banks lent him litional hundreds of millions secured y by his signature and junior claims already heavily mortgaged assets. ne executives at noninvolved banks that sort of exposure to the propri- r of such high-risk projects as casi- , airlines, and real estate projects is hly unusual.

t's easy to cast aspersions in hind- ht, of course. Bankers say they couldn't have predicted the abrupt collapse of the real estate and junk markets. Yet many bankers seemed to treat their huge exposure to Trump almost as casually as a routine home-improvement loan. According to officers of institutions involved with Trump credits, few lenders subjected to anything more than cursory scrutiny the lofty asset valuations on Trump's periodic net-worth statements. Few took the trouble to analyze his rapidly rising debt levels, especially in Atlantic City. Few picked up on his rapidly deteriorating operational cash flow. Trump barely broke even in 1988 and had a negative $60 million cash flow in 1989, according to BUSINESS WEEK estimates. Few sought to determine the full extent of his unsecured debt. As one banker who several times declined to lend money to Trump puts it: "These guys just didn't do their homework."

ATLANTIC CITY SUNBATHERS AND THE TRUMP HELICOPTER: LIFE WAS A BEACH

The judgments regarding individual properties were particularly maladroit. Most glaring is the Trump Shuttle, which he bought in June, 1989, for $365 million. To finance the purchase and let him refurbish the airline, the banks loaned $400 million to Trump, who initially put little if any equity into the deal. Yet a lender now concedes that the airline is only worth $250 million to $300 million. Despite Trump's typically euphoric projections, some bankers in the deal knew that the debt load meant the Shuttle had almost no chance of achieving a positive cash flow anytime soon. Bankers say their plans to refinance the debt and inject more equity into the Shuttle, as well as other properties, were stymied by market conditions.

Like journalists and just about everyone else, bankers bought the Trump hype. "He seemed to have a Midas touch," says one banker. His early deals, especially the Grand Hyatt and Trump Tower in New York, paid off big, which lulled bankers into letting down their guard. When Trump switched from dealmaker to operator of such complex properties as hotels, casinos, and airlines, the bankers kept right on writing checks. "That's when they really got stupid," says Ron Millican, a New York developer and former Citibank officer. "You never back an entrepreneur to this magnitude when he moves into a totally new area."

The few skeptical banks were scoffed at by the true believers. "We turned down the Shuttle loan because the numbers just didn't pencil out," says an officer with a Japanese bank. "But the other banks just said: 'Hey, it's Trump, the guy is golden.' They were seduced."

'SURPRISE.' Although Trump began fighting a cash squeeze as early as late last year, most of his banks seemed oblivious. It was Trump, not the banks, who initiated the debt negotiations in mid-May—and not until after reports of his strained financial condition had appeared in the press. An officer for one of his banks admits that the severity of his problems "caught everyone by surprise."

When he was asked recently about whether the banks should have anticipated Trump's troubles, a senior executive with one of his main banks responded vociferously: "There are thousands of Monday-morning quarterbacks." But then his manner changed. "At the time, under the circumstances . . . ," he said softly, his voice trailing off.

When the next time and circumstances for aggressive lending come along, the banks better make sure they have smarter teams on the field.

NEW KIDS ON THE BLOCK HAVE WON THE STREET'S HEART

In software, pollution control, and health care IPOs are hot

Wall Street's bulls and bears butt heads every day, the bulls intent on pushing the Dow Jones industrial average over the 3000 mark and the bears doing their best to block the way. But there's one corner of the stock market where the bulls are for the moment unassailable—and that's in initial public offerings.

New issues are hot. The Standard & Poor's New Issues Index is up 12% in 1990, while the S&P 500-stock index is just about even. The Dow, which has been faring better than the broader market, is still up only about 3%.

The sparkle in the new-issue market is a reflection of what's going on in the broader stock market: Since the economy is sluggish, investors have an appetite for growth stocks. And most of the successful IPOs are in industries where the prospects seem boundless, such as pollution control, computer software, health care, and infrastructure. Energy-service companies are coming to market with success, too. Cyclical manufacturing companies are harder to sell. Bank and thrift offerings are hardly ever seen.

BUBBLE GUM. Already this year, about 78 companies have gone public (excluding closed-end funds and penny stocks), and they've raised about $3 billion in equity financing, according to IDD Information Services. In all of 1988, there were only 106 IPOs with a total worth of $5.5 billion. And 1989 was only a shade better: 107 deals, $5.8 billion. With more than six months left, 75 companies have announced their intentions to go public, and new registrations are being filed every day. So 1990 is shaping up to be the best year since 1987, when the crash knocked the wind out of IPOs.

"We're doing six deals alone this week," says Richard L. Franyo, a managing director at Alex. Brown & Sons Inc., an investment bank that is riding the crest of the IPO boom. Alex. Brown stock, at 14, is up 30% this year. On June 26, Alex. Brown, along with co-manager Donaldson Lufkin & Jenrette Securities, sold 2.25 million shares of AICorp Inc., a Waltham (Mass.) software-engineering company, for $9.50 each. The stock closed for the day at 10⅞, up 14.5%. "A successful IPO has an immediate 10%-to-15% appreciation in price," says Joe Roby, a DLJ managing director.

...AND THESE IPOs ARE HOT

Company	Date	Offering price	Recent price
DYNASTY CLASSICS	May 3	11¼	16¼
FLEER	June 5	15	23¾
GRANITE CONSTRUCTION	Apr. 20	17	23½
INTEGRATED WASTE SERVICE	May 14	5	6⅞
MID AMERICAN WASTE SYSTEMS	May 18	24	38½
RASTEROPS	May 9	12	18
SANIFILL	Apr. 12	9½	18¾
TELEBIT	Apr. 27	10	12½
TOKOS MEDICAL	Mar. 26	12	13¾
XILINX	June 12	10	15⅜

DATA: STANDARD & POOR'S CORP., BW, IDD INFORMATION SERVICES INC.

While the new-issues market is booming, not every deal heads straight up. The same day AICorp went public, so did Arctco Inc., a snowmobile manufacturer in Thief River Falls, Minn. The shares were priced at $11 each, but by day's end, the stock had only moved to 11⅝. Still, Allan Hadhazy, senior analyst for newsletter *New Issues*, says Arctco is a good buy: "It has been in the black for five years, has a commanding market share, and it's really a unique business."

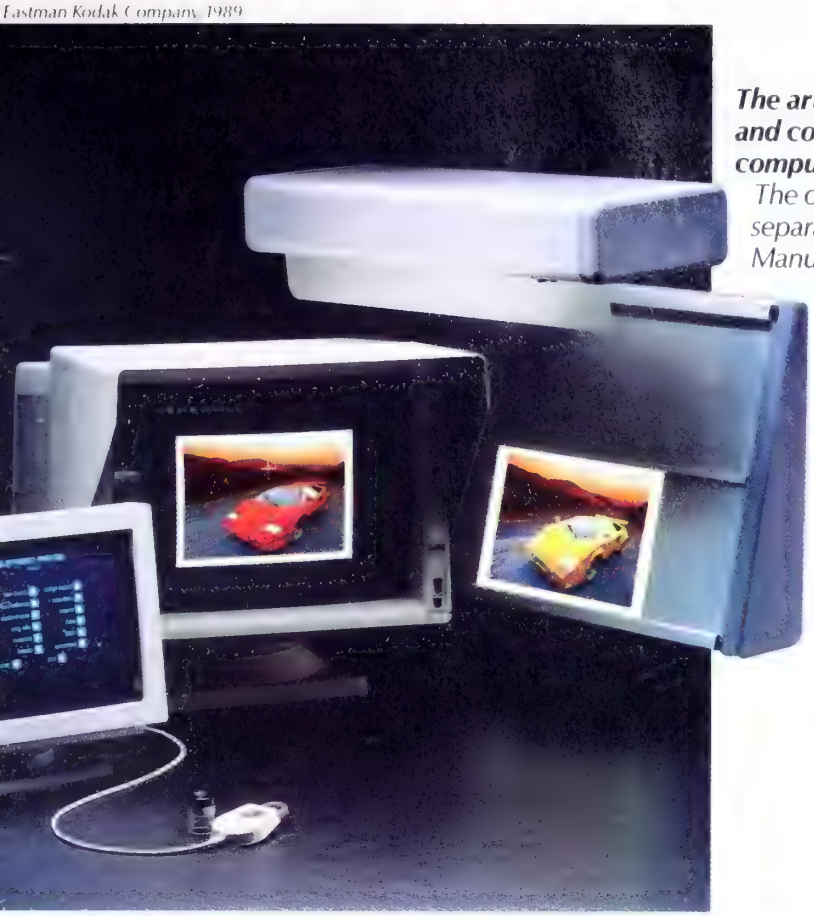
But a hot IPO can happen in almost any industry. Look at Dynasty Classic Corp., which makes light fixtures: It' up 44%. Or consider Fleer Corp., a na tional marketer of sports cards and bub ble gum. Since going public on June 5 the shares are up 58%. "Fleer has a littl more debt than I like to see," says Ed win Powell, a portfolio manager at Prov ident Capital Management, who bough Fleer at the IPO. "But it's a high-qualit company, and at 12 times earnings, i was cheap."

CHILLING OUT? In the IPO market, price earnings ratios are critical. Environmen tal Elements Corp., expected to go pub lic in July at $14 to $16 a share, earne just 20¢ a share in the fiscal year ende Mar. 30. That puts the p-e ratio north o 70, which many investors think is to pricey, even considering that the compa ny's air-pollution-control equipmen should sell briskly as industry complie with the new Clean Air Act. "Some times, you can overlook valuation if company really has a unique franchise, says Edward N. Antoian, portfolio mar ager of the Delaware Trend Fund. "Bu you had better be right."

In the past, stratospheric p-e ratio have often been the sign of a top in th IPO market. Donna Calder, portfoli manager of the Oppenheimer Discover Fund, thinks the new issues will take breather this summer. But that's no bad. In her view, it's a second chance t buy emerging growth companies a marked-down prices.

By Jeffrey M. Laderman in New Yor

Eastman Kodak Company, 1989



The arts of page makeup, color separating and color correcting are all becoming part of computer science. Once again, Kodak leads.

The once complex process of producing color separations for printing is now incredibly simple. Manual cut-and-paste operations can now be accomplished on the screen of a computer. And, a state-of-the-art color system permits image manipulation—a truly magical ability to enhance photographs and artwork—with equal ease.

We are more than photographs. We are the world's premier graphics imaging company. ***For more details on enhancing the graphic arts tradition, call 1 800 445-6325, Ext. 960F.***

ENHANCE IT WITH KODAK

The new vision of Kodak

BY GENE G. MARCIAL

BARGAIN DAYS AT COKE'S BIGGEST BOTTLER

Mario Gabelli makes no bones about how disgruntled he is over the way Coca-Cola treats its major bottler, the 49%-owned Coca-Cola Enterprises. The investment pro says Coke usually gets the upper hand in its dealings with CCE. That has caused investors to shun CCE shares, he says. While Coca-Cola's stock has surged, CCE has gone nowhere. Indeed, CCE is trading at 14½, below its initial offering of 16½ four years ago.

Greg Villany, an analyst at Gabelli & Co., argues that CCE has little say in the pricing of the syrup it buys from Coke. Likewise, Coke has final say in CCE's buying and selling of bottling franchises. The arrangement has helped Coca-Cola but has caused CCE's earnings to become "erratic," says Villany. As a result, he adds, CCE's stock continues to trade well below the company's private-market, or asset, value.

Gabelli has reason to complain. His firm and its family of mutual funds is a large CCE shareholder. Despite his griping, Gabelli has raised his group's stake to 6.1% from 5% in March.

Why? "The stock is selling at half of what the company's assets are worth," says Gabelli, who is known as a patient and savvy picker of companies with undervalued assets. He puts CCE's current private-market value at $30 a share. And he insists that, based on CCE's robust cash-flow and earnings potential, the stock would be worth $50 a share in three years. What's more, Gabelli believes Coke will soon make an offer for the CCE shares it doesn't already own.

SWEET DEAL. Others agree. "We believe that it makes long-term stratregic sense for Coke to consider buying all of CCE," says Joe Doyle, the veteran beverage-industry analyst at Smith Barney, Harris Upham. He also thinks that, based on recent acquisitions of bottlers, CCE is trading at a bargain price. Even at $30 a share, the stock would be selling at about eight times this year's estimated operating cash flow of $4 a share—way below the 12 to 13 times cash flow at which other bottlers have been acquired.

Gabelli says the combination of a favorable long-term pricing environment in the soft-drink industry, the sizable discount of the stock to its asset value, CCE's continuing buyback of its own shares, and the potential of a takeover by Coke "make the stock a compelling bargain." A Coke spokesman says the company is "satisfied with its relationship with CCE."

KAY JEWELERS MAY SOON BE BETROTHED

Kay Jewelers, whose stock has been beaten down from a high of 24 last year to 7 in late May, has crept up in recent days to 10. This major retailer of fine jewelry had five straight years of double-digit earnings growth until last year, when profits dived sharply, largely because of several management missteps. But Kay is expected to get back on track this year, and some analysts see earnings rising from a paltry 2¢ a share in 1989 to 60¢ this year.

But there's more than just the expected earnings recovery behind the recent action in Kay Jewelers shares. Once a rumored takeover target, Kay is now said to be close to doing a deal: Word is that it will sell either the entire company to a large British jewelry retailer or 70 to 100 of its 494 stores. Some pros put Kay's buyout value at around $273 million, or $22 a share. So if the company, which operates in 32 states, opts to sell that package of stores, it could bring in $52.5 million to $75 million.

Kay is known to have received several informal inquiries from some major retail outfits in the U. S. and Britain. Although nothing has yet materialized into a genuine bid, one investment manager is betting that a deal is "more or less imminent."

Bryan Campbell, research director at *Special Situation Report*, a market newsletter in Rochester, N. Y., notes that several Kay officers and directors had been buying shares on the open market at 7¼ to 8¼. "This is the best indication yet that the short sellers may have been grossly exaggerating Kay's problems and that Kay has, indeed, received a serious expression of takeover interest," says Campbell. The shorts have sold some 1.9 million shares, or 66% of the 2.7 million shares in public hands.

SHORTING DESOTO: A SURE THING?

The shorts in DeSoto are playing a high-risk game, but they may end up winning big. They're betting that Sutton Holding, an investor group that has offered $50 a share for the major maker of paint and coatings, won't be able to take the company. And they insist the stock will tumble to 30, if not lower, from its current 41.

The short interest in DeSoto has been rising as Sutton has kept extending the deadline for its offer. Sutton's bid is conditioned on getting tenders for 90% of the shares. As of June 26, Sutton had received 79%, including its own stake. But 90% is quite unlikely because management, which has rejected Sutton's offer as inadequate, controls at least 10%.

The shorts also contend that Sutton hasn't been able to come up with a financing plan for the acquisition. Sutton Chairman Bill Spier counters by saying he will work out the financing with an Austrian bank once he gets the 90%. Meanwhile, DeSoto's management has been looking for a white knight. And it has been trying to sell off pieces of the company, including the consumer-paint business, which accounted for 43% of sales last year. So far, no takers, despite efforts by Goldman Sachs to find buyers.

The rewards of shorting the stock outweigh the risk, says one manager of a hedge fund that specializes in selling high-flying issues that its analysts believe are overdue for a big fall. "There's no question about it," he says. "There won't be a deal—with Sutton or anybody else." A DeSoto spokesman says the company will make an announcement in a week on the progress of negotiations for the sale of some of its assets.

astman Kodak Company 1989

Because they combine high quality and ease of use, Kodak printing plates satisfy the most demanding printers and customers.
Whether the printing press is a small sheet-fed model or a web-fed monster, there is a Kodak printing plate to fit. Kodak plates offer wide exposure and processing latitude and consistent performance on press. That means less downtime, fewer makeovers, longer runs...all the things that increase productivity and make printers' lives easier and more profitable.

We are more than photographs. We are the world's premier graphics imaging company.
For more details on enhancing the graphic arts tradition, call 1 800 445-6325, Ext. 960H.

PRINT IT WITH KODAK

The new vision of Kodak

Commentary/by Christopher Farrell

WHY THE FED SHOULD IGNORE CRIES OF 'CREDIT CRUNCH'

How can this be? Even as politicians blame each other for the $500 billion savings and loan debacle brought about by lax regulation and shoddy lending standards, Washington officials are complaining that banks are being too fussy about whom they lend to. According to Commerce Secretary Robert A. Mosbacher and Housing Secretary Jack F. Kemp, the banks, egged on by regulators, are creating a credit crunch that is about to cripple the economy.

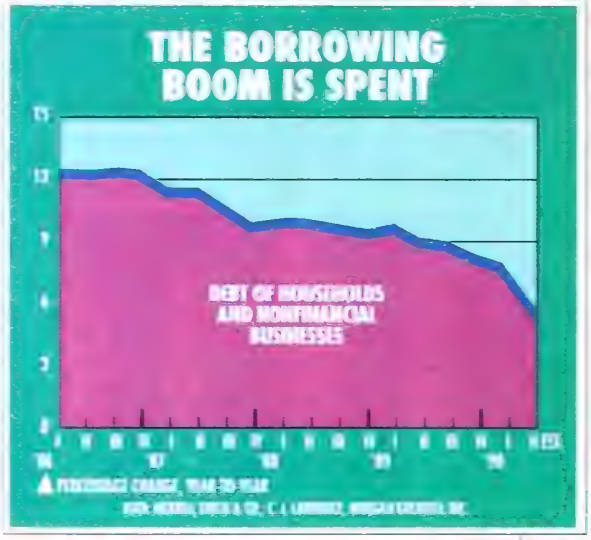
Fact is, we do not have an old-fashioned credit crunch. Borrowing is shrinking in many cases for reasons that do not include draconian bank lending standards. The crunch complaints may be just a twist on an old game designed to get the Federal Reserve Board to pump out more money and stimulate the economy.

This time, though, the pressure is particularly dangerous. With inflation hovering around 4.5%, interest rates would soar—and the economy tank—if financial markets thought the Fed was abandoning its inflation fight. Any easing now would take the pressure off the Administration and Congress to forge a package to reduce the budget deficit. And if regulators took the political rhetoric seriously and eased up, we could eventually have an even bigger mess among depository institutions.

FEWER APPLICANTS. First, let's look at this so-called crunch. The decline in credit growth, as Fed Chairman Alan Greenspan recently pointed out to Congress, stems partly from a growing reluctance to borrow rather than an unwillingness to lend. In many cases, there just isn't much new business to finance. Real nondefense, capital-goods orders are down nearly 6% from a year ago, for example. Private-sector payroll growth is 30% below the average pace of the second half of 1989.

In this soft business environment, leveraged companies would be foolish to borrow still more. Debt payments are already absorbing a record 37% of corporate cash flow, and dividend cuts in the first four months of 1990 matched the total for all of 1988 and 1989. The ratio of dividend increases to cuts has plunged from 13 to 1 last year to 5.6 to 1 today—the lowest ratio since the 1981-82 recession.

Households are also feeling the enormous debt burden they took on during the 1980s. Household debt is up from 72% of household income at the beginning of the 1980s to 88% currently. Mortgages now account for more than half of home values for the first time. That compares with 36% in 1980 and has the effect of making consumers poorer. Sure enough, real consumer spending is flat this year, and after adjusting for inflation, retail sales other than autos have fallen for three months in a row.



In this environment, you can't blame elected officials for casting a nervous eye on the Fed, which wants to keep the economy chugging along without rekindling inflation with faster money growth. M4, a broad money measure that includes credit as well as cash, has increased only 2.9% over the past year. That's its lowest growth rate since the Fed began the measure in 1960, says Edward S. Hyman, chief economist at C. J. Lawrence, Morgan Grenfell Inc. It's apparently small comfort to politicians that this tight grip on money has so far enabled the Fed to dampen inflationary pressures while avoiding the economic whipsaw that long plagued the country: rapid money growth and rising inflation ending with a Fed-induced credit crunch and recession.

Banks are an important factor in slowing down the economy right now. They are becoming increasingly cautious about making loans, particularly in real estate. There are simply too many vacant office buildings crowding city skylines and too many shopping malls marring the American countryside. Residential real estate is also in a slump. More stringent credit standards are being imposed on corporations, too. The credit-rating agencies, for example, are downgrading some four debt issuers for every one upgrade. New junk-bond issues are approximately 90% lower than a year ago. Regulators have been conducting thorough, tough bank examinations.

SOUND CAUTION. It's no wonder business loans from banks are growing more slowly—2% over the most recent 12 months, compared with 4% in the prior year. But they are growing nevertheless. And commercial paper lending, while slowing down from its 20% growth pace earlier this year, is still expanding at around 9%. Obviously, it's the marginal borrower, leveraged to the eyeballs, who is hurting most. The borrower with a sound balance sheet and viable plans can still get a loan—impossible if there were a true credit crunch.

The dangers of a miscalculation by the Fed are real. The economy is flirting with recession because of turmoil in the financial system. The real estate industry's problems are deep and widespread. Bankers, faced with years of writing off bad loans, are increasingly nervous. For instance, more and more are cutting back on their lending to small businesses. If the Fed clamps down too tightly, the credit squeeze could crimp economic growth for years and even cause a recession.

The Fed is well aware of the risks, though. For now, regulators should continue to emphasize prudent lending practices and conservative financial accounting for their long-term benefits while watching carefully the short-term dangers. Financial prudence may be the economy's best chance to get lower interest rates and continued growth in the 1990s.

CONDUCTORS

N KOREA, LL CIRCUITS ARE GO

e chip industry is hot—but it could stumble without more R&D

itting in Goldstar Electron Co.'s spacious new research center on the southern edge of Seoul, Vice-sident Kim Chang Soo's eyes light up he reflects on his company's pro-s. "When I joined Goldstar back in , the point we've reached today ld have seemed farfetched," says , who spent 18 rs in the U. S. work- for Digital Equip-t Corp. and Harris . Six years ago, he rned to South Ko- to take up the dy challenge of help-build Korea's micro- industry. "The k load and responsi-ies are beyond what n really handle," he s, "but the excite-t compensates."

im's exhilaration fies the mood per-ing Korea's semi-ductor industry. mingly overnight, ea has become the ld's No. 3 chip pro-er, trailing only Ja- and the U. S. This r, Korea's chip sales uld top $2 billion. t's a 1,000% leap n 1985 and repre-s an annual growth more than double an's and nearly tri- that of the entire iconductor market. By 1992, fore-s market researcher Dataquest Inc., s by Korea's five main chip fabrica- will soar to $5 billion. "The Koreans e made tremendous strides," says rence R. Hootnick, head of Intel p.'s memory-chip business.

NING GROUND. In fact, Korea's lead- chipmaker, Samsung Electronics Co., ow only a year or so behind Japan in amic random-access memories AMs), the world's biggest-selling type chip. Samsung recently started ship-g its own 4-megabit DRAM—the first e a Korean company has designed a state-of-the-art integrated circuit from scratch. Only late last year did Japanese chipmakers begin selling these memory chips in limited commercial quantities, and they are just now ramping up to full mass production.

To ensure that the gap with Japan continues to close, the Korean government is anteing up $270 million toward a five-year, $770 million public-private program that runs through 1993. "We hope to catch up with Japan [in memory chips] by the end of this project," says Kim Kyung-Seok, a director at Korea's Trade & Industry Ministry. In addition, Seoul has created a special $400 million fund to provide long-term, low-cost financing for new chipmaking facilities.

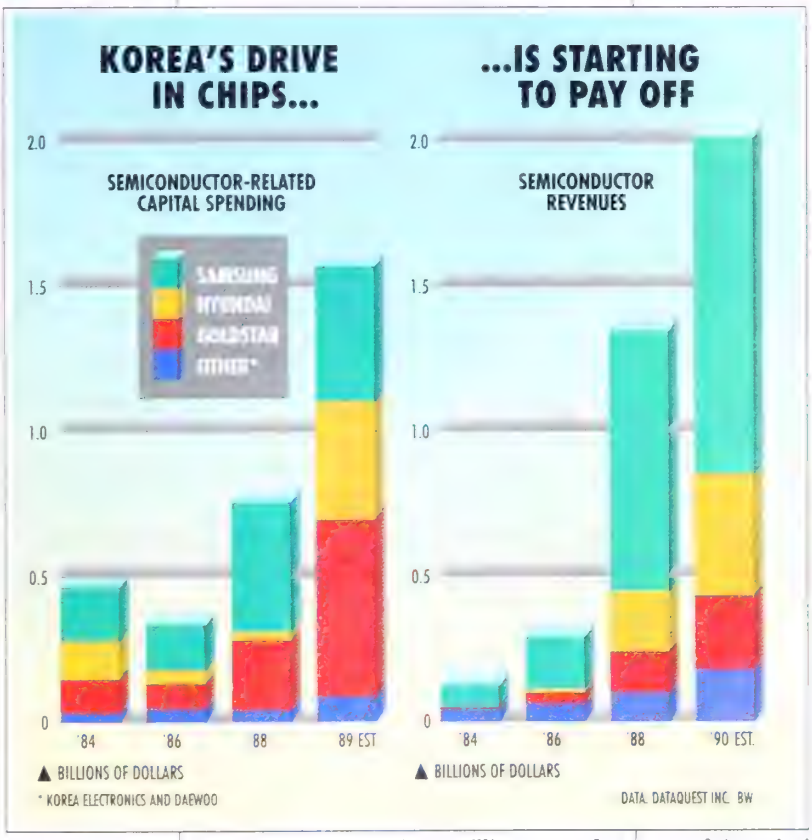
Rather than going after small niches, Korea's chipmakers chose to attack the high-volume DRAM markets. Seoul's Ssangyong Research Institute predicts that Korean companies will grab 20% of next year's expected $5.3 billion global market for "1-meg" DRAMs, the workhorse chip used in a broad array of computers and electronics products. Samsung is now shipping up to 6.5 million of these chips per month, more than all but the two top Japanese chipmakers, NEC Corp. and Toshiba Corp. In fact, the Korean company last year accounted for 11.5% of the world market for 1-meg DRAMs. This year, it hopes to sell $750 million worth of memory chips in the U. S. alone, says Joel H. Girsky, chairman of Jaco Electronics Inc., a Hauppauge (N. Y.) distributor that specializes in Korean semiconductors.

OLD MEMORY. Lacking the dynamic leadership of Samsung founder Lee Byung-Chull, other Korean chipmakers haven't moved as quickly. Hyundai Electronics Co. and Goldstar are still milking the market for yesterday's 256K DRAMs, which crested in 1988. But in that market they're giving Japanese rivals a tough time. In fact, under pressure from lower-cost Korean chips, the Japanese are rapidly winding down their production of 256K chips. And early this year, Toshiba and NEC even trimmed output of 1-megabit DRAMs.

But Korea will need considerably more time before challenging America and Japan in other segments of the semiconductor industry. Overall, according to the Electronic Industries Association of Korea's bullish estimates, Korea accounted for just 7% of last year's $57.2 billion world semiconductor market. That's not even a quarter of America's second-place share. And Dataquest pegs Korea's portion at only half as much.

What's more, the Korean industry isn't moving very fast into microprocessors and other more profitable products. "Lack of R&D is Korea's big weakness," declares Tsuyoshi Kawanishi, executive vice-president in charge of Toshiba's semiconductor operations. Samsung last year devoted only 6.1% of sales, or $340 million, to research and development. The top Japanese companies invest double or triple that percentage.

But the Koreans are still sowing the



BusinessWeek

The New Business Week Mutual Fund Scoreboard Diskettes

Compare the performance of over 830 equity and 690 fixed income mutual funds at the touch of a key!

Now you can use the enormous power of your IBM or compatible PC to select, rate and compare virtually every mutual fund on the market — the entire spectrum of over 1,500 funds covered by Business Week's annual Mutual Fund Scoreboard.

With simple menu commands, the Mutual Fund Scoreboard Diskettes enable you to select and display the data *you* want in a format that *you* can use to make better buy/sell decisions. For example, you can instantaneously rank all no-load equity funds whose objective is aggressive growth, which outperformed the S&P 500 over the past 5 years and have assets of less than $500 million.

Over 25 key performance factors and data fields on each fund.

The Business Week Mutual Fund Scoreboard Diskettes offer you all the information you need to make better decisions including a beta factor for risk level and the exclusive Business Week Rating of mutual fund performance adjusted for risk and sales charges.

Transports easily to Lotus 1-2-3 or other software.

Although the Scoreboard Diskettes include their own powerful data management program, all data is easily converted into Lotus 1-2-3 or ASCII files so you can take advantage of your favorite spreadsheet, word processing and graphics software.

Used to stay up to date by Financial Planners, Investors, and Brokers!

Order your own subscription now to thes Fixed Income and Equity Diskettes!

Each individual diskette costs $69.95, but you can subscribe to monthly or quarterly editions c either version at great savings. Even better, if you purchase a su scription to both the Equity and Fixed Income Diskettes, you'll save even more.

So order now by calling **Toll Free 1-800-553 3575** or send the coupon.

Special Features:

- Simple menu commands
- No additional software required
- Supports multiple search and sort criteria on over 25 information fields
- Fast searches and lookups. The entire database and data management program reside in memory
- Data transports easily to Lotus 1-2-3 and other popular software
- Quarterly or monthly updates to keep your data current
- Requires an IBM-PC or compatible with 256K of memory and DOS 21 or higher
- Integrated for ease of us with Fund Master TC fro Time Trend Software anc Centerpiece Portfolio Management Software fr Performance Technologi
- Source data supplied by Morningstar, Inc.

Business Week Mutual Fund Scoreboard Diskettes

Yes, please enter my subscription immediately as checked below

Equity Funds only	Fixed Income Funds only	Both Editions
☐ Monthly @ $299.00 yr	☐ Monthly @ $299.00 yr	☐ Monthly @ $399.00 yr
☐ Quarterly @ $199.00 yr	☐ Quarterly @ $199.00 yr	☐ Quarterly @ $299.00 yr
☐ Single Diskette $69.95	☐ Single Diskette $69.95	☐ Single Diskette $139.95
☐ 3½" Diskette	☐ 3½" Diskette	☐ 3½" Diskette
☐ 5¼" Diskette	☐ 5¼" Diskette	☐ 5¼" Diskette

☐ Please send me more information (New Jersey Residents, please add 6% Tax)

Name_____ Daytime Phone_____

Title_____ Company_____

Address_____

City_____ State_____ Zip_____

☐ Payment enclosed (Check payable to BusinessWeek Mutual Fund Scoreboard.)

☐ Bill my company (Letterhead or Purchase Order required)

☐ Charge my ☐ Mastercard ☐ Visa ☐ Amex ☐ Diners Club

Card No._____

Expiration Date_____ Signature_____

Mail or fax this coupon to **BusinessWeek** Mutual Fund Scoreboard Diskette, Dept HB11, 185 Bridge Plaza North, Suite 302, Fort Lee, New Jersey 07024, U.S.A. Tel. (201) 585 1889 Fax. (201) 461-9808 OR Suite C, 22nd Floor, Yiko Industrial Building, 10 Ka Yip Street, Chaiwan, HONG KONG Tel 852 5 8978447 Fax 852 5 598246 OR 25 Castle Street, High Wycombe, Bucks. HP13 6RU, ENGLAND Tel. 44-494-25021 Fax 44-494-465451

s of future growth. It's no accident the strategy seems closely pat-ed on Japan's. That country's su-acy is grounded in memory circuits, ite their low margins. Concentrating memory chips leverages Korea's gths—low-cost, high-volume manu-ring and large, vertically integrated panies. And producing DRAMs is a t teacher. "Memory drives technol-' notes an American semiconductor utive in Seoul. "If you can do that, retically you can do anything else."

OTH SELLING. Will the Korean chip-ers be able to innovate? P. June president of Western Digital Korea is a believer. He buys large vol-s of Korean semiconductors for his parent, Western Digital Corp., and es his suppliers' quality and tech-gy. He is especially impressed with sung's new Keehung plant in subur-Seoul, which is churning out 4-meg Ms. "It's the tops," Min says. And sung recently ran successful trials equipment than can print circuit just 0.6 microns wide, 25% thinner those in 4-megabit chips. That's the width that will be used to make 16-abit DRAMs, which will arrive in a le of years.

far, Korea's success hasn't sparked e frictions. In fact, Korean chip-ers have an important advantage to oit: a symbiotic relationship with companies. Texas Instruments Inc., instance, has transferred its 256K 1-megabit designs to Hyundai, h makes some of the chips that TI under its own label. And Intel is a or buyer of Samsung and Hyundai Ms. The company then offers the s to its microprocessor customers prefer one-stop shopping.

ich arrangements cushion U. S. pro-ers against the hefty cost of new iconductor plants—and help fend off er inroads by the cash-rich Japa-, who last year gained two more ts in America's domestic market, sting their share to 26%. Still, con-ing what the Koreans ultimately do the transferred technology can get ky, admits a U. S. semiconductor ex-ive stationed in Seoul. "By contract, can use the technology we give n only for us," he notes. "But of rse, osmosis is at work, so you can't ly protect it." Technology trans-ed from the U. S. played a signifi-role in Japan's rise to world leader-. Remote as the possibility may n today, the U. S. may now be help-yet another future rival to follow in an's footsteps.

By Robert Neff and Laxmi Nakarmi in ul, with Richard Brandt in San Fran-o

A VERMONT CONFERENCE CENTER THAT TURNS BUSINESS INTO PURE PLEASURE

One of Vermont's finest mountain resorts is in Stowe, just 35 minutes from Burlington International Airport. At Topnotch, a distinguished resort, spa and conference center on 120 country acres, our fully equipped facility accommodates from 10 to 250 with every state-of-the-art convenience. For pure pleasure, indoor and outdoor tennis, a full-service spa, indoor and outdoor pools, golf, miles of hiking, biking and riding trails and the East's finest skiing are all at your doorstep. Our professional staff custom tailors every conference detail to your style. And guarantees the personal care your successful meeting demands.

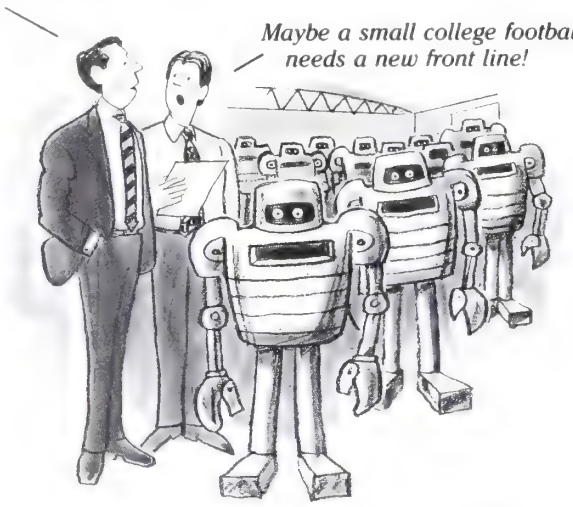
Call us at **800-451-8686** *(Eastern US)* **800-677-8686** *(VT)* or **802/253-8585**.

TOPNOTCH AT STOWE RESORT AND SPA

Mt. Road, Stowe, VT 05672
A 4-star, 4-diamond resort

What are we going to do with your extra robots, Fenton?

Maybe a small college football team needs a new front line!



CALL EAL IF YOUR CORPORATION HAS MATERIAL AVAILABLE FOR DONATION.

EAL - Will take your donated material and use it to generate scholarships for needy, deserving students. Donations could mean an above cost tax deduction - IRS Reg.170(e)(3). Scholarships are given in the donating corporation's name.

EA
Educational Assistance Ltd.℠
P.O. BOX 3021 • GLEN ELLYN, ILLINOIS 60138

For More Details
Call 708-690-0010
Peter Roskam
Executive Director

This will help you spend money overseas.

© Visa International 1987.
Reproduced with permission.

This will help you save money overseas.

Calling home from overseas can be a lot less expensive when you use *AT&T USADirect*® Service. Just dial the *USADirect* number for the country you're calling from, and you'll be connected to an *AT&T Operator* in the U.S. within seconds. It's fast. It's easy. It's available in over 50 countries. And it helps you minimize hotel surcharges. You save with AT&T's economical international rates, whether you use your *AT&T Card* or call collect. For your information card, call **1-800-874-4000, Ext. 301.**

© 1990 AT&T

AT&T
The right choice.

ED BY OTIS PORT

OWING A RACING HEART TH RADIO WAVES

It's called tachycardia—and the attacks can be terrifying. For no apparent reason, the heart starts racing, beating around 200 times a minute, almost three times the normal rate. Although usually not life-threatening, these episodes can last anywhere from a few minutes to several hours. Roughly 1% of the population suffers from such t circuits in the heart. In the past, doctors have treated ents with long-term medication or implanted a pacemaker. ere cases may even require open-heart surgery.

ut doctors at the University of Michigan Medical Center another idea: Zap the problem tissue with radio-frequen-energy. According to Dr. Fred Morady, director of the er's Clinical Electrophysiology Laboratory, the procedure ires only a local anesthetic. A wire is threaded through a into the heart. When this "antenna" is touching the small s that cause the problem, the wire is charged with radio-e energy, heating the tip and cauterizing the spot. So far, technique has cured 90% of 90 test patients.

W YOU CAN BE A VERY BUSY UCH POTATO

heck into Atlantic City's Taj Mahal hotel, and you soon won't have to leave the room to gamble—not if blackjack our game. Satellite Movie Co., which supplies cable televi- programming to the Taj Mahal and other hotels, plans to r interactive TV—blackjack, game shows that enable view-to join the competition, and sporting events where couch toes can pick the best camera angles.

he technology was developed by ACTV Inc., a New York startup. It squeezes three or four variations of a program the signal space normally needed by two TV channels—so vers even have options with live programs. In blackjack, n the dealer on the screen asks if you want to be hit or d pat, you press the corresponding button on a special troller. That causes the recorded program to shift instantly he next appropriate segment, giving the impression that 're competing against a live dealer.

here's just one catch: You can't collect any winnings. That ld be in the cards for later, but it will require a change in gambling laws. For ACTV and rival interactive-TV suppliers, igh, the payoff could be huge. Some pundits project a tibillion-dollar business by the mid-1990s.

'TROJAN HORSE' ROM JAPAN?

hould the U. S. accept Japan's offer to work together on developing tomorrow's manufacturing technologies—with an footing most of the tab? That's the question being lled by the Commerce Dept., which is exploring a sweeping anese proposal called Intelligent Manufacturing Systems, a 10-year, $1 billion program to share the escalating costs of perfecting new automation technologies. Japan's Ministry of International Trade & Industry says it will pick up 60% of the cost if the U. S. and Europe will split the rest.

First unveiled a year ago, the IMS plan has been mired in controversy from the start. Many U. S. business and government leaders see it as a Trojan horse, aimed at poaching leading-edge American technology, especially in artificial intelligence and software. But industrial giants such as TRW, Rockwell International, and United Technologies think the IMS idea has some merit—if it is managed well. Officials from the U. S., the European Community, and Japan are slated to thrash out their concerns at a mid-September meeting in Tokyo.

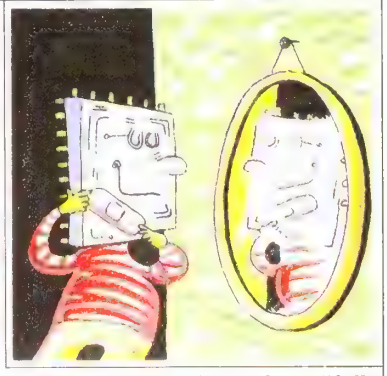
THESE 'DESIGNER ENZYMES' MAY IMPROVE ON MOTHER NATURE

Enzymes are proteins that serve as catalysts for myriad biological functions, from digestion to brewing beer. Scientists have tried for decades to make synthetic enzymes, without success. Until now. Researchers at the University of Colorado's Health Sciences Center have synthesized the first man-made enzyme. Their test-tube creation mimics a digestive enzyme produced by the pancreas.

The feat clears the way for "designer enzymes," says John M. Stewart, the biochemist who headed the effort. Synthetic enzymes could substitute for faulty ones in people with genetic diseases. And scientists can improve on nature by making catalysts that work more quickly than those used today.

To develop the molecular blueprint for their synthetic enzyme, called CHZ-1, the Colorado team spent two years using computers to test various designs. It then took two months to string together the amino acids that are the building blocks of proteins. But the process should be shorter next time: The scientists already have blueprints for several more enzymes.

A HOT IDEA FOR SHORT-CIRCUITING SHORT CIRCUITS



Computer companies routinely "burn in" every system for hours or days before it gets shipped to a customer. Running the equipment helps uncover defects known as "near opens," which are pinch points in printed circuits where electrons have to funnel through a slightly narrowed gap. As electrons whiz through constrictions, they erode the wires. The ultimate result can be a "full open"—better known as a short circuit.

Now, there's a way to coax such defects into fixing themselves before they short out. Because the constrictions offer more resistance to electric currents, they get hotter. C. Julian Chen, a researcher at IBM's Watson Research Center, exploits those temperature differences with a modified electroplating technique that heals the defects automatically. When the circuit is submerged in a plating solution, metal atoms migrate from the cooler, thicker parts to the hotter, thinner sections. In no more than five minutes, the thin spots get fat. So far, Chen has worked with printed circuit boards, but he says the method could be adapted to semiconductor circuits as well.

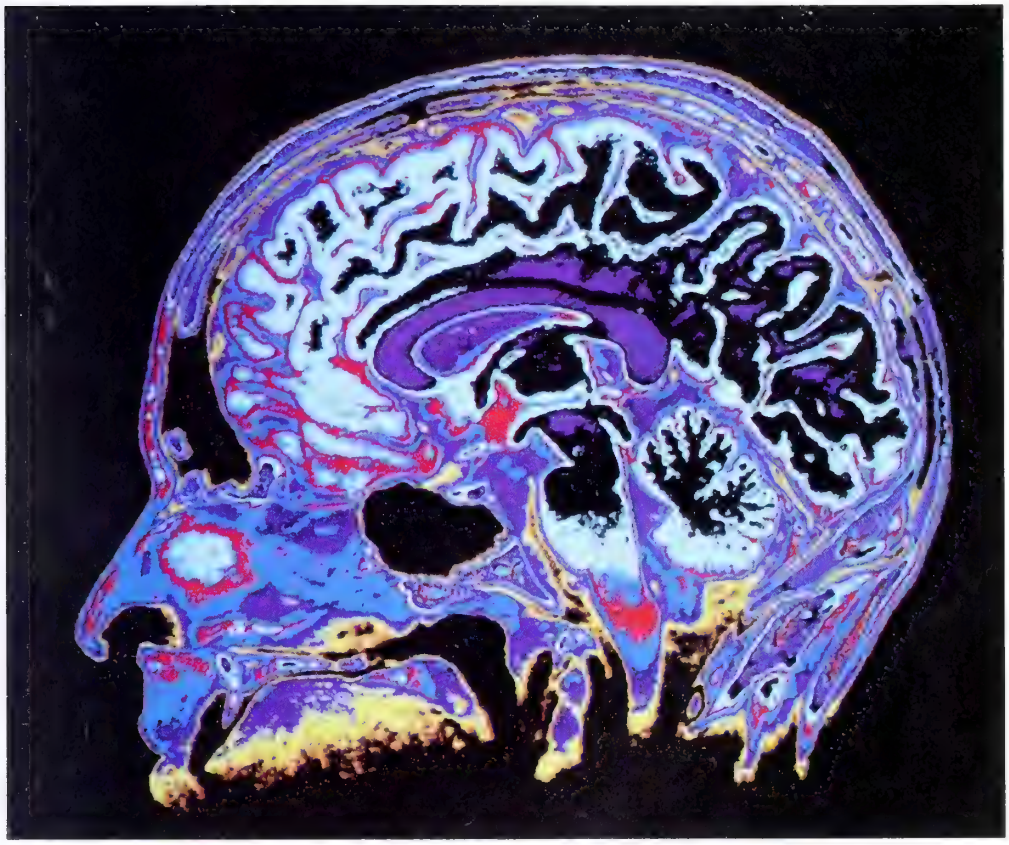
M. E. COHEN

SIEMENS

1895. That was then.

Working in a small laboratory, Wilhelm Roentgen made the world's first x-ray images. Working with him, Siemens patented and manufactured the world's first x-ray tubes.

1990. This is now.



This modern magnetic resonance image lets doctors see into the human body more clearly than ever before. It is a product of years of Siemens investment in research and development. Happily, you don't have to be a scientist to appreciate the results. Doctors, hospitals and clinics throughout America are giving their patients better care because of Siemens advances in many forms of diagnostic imaging, including ultrasound, magnetic resonance, nuclear imaging and computed tomography. And that's the kind of result we can all feel good about. **Siemens. Precision Thinking.**

For more information, write for *Siemens '90* Box 8003M, Trenton, New Jersey 08650

Automation Automotive Electronics Electronic Components Energy Graphic Systems
Information Systems Lighting Systems Medical Systems Power Generation Telecommunications

Commentary/by John Hoerr

MAKING HIGH SCHOOL DIPLOMAS TICKETS TO THE WORKPLACE

High school graduation this June was the beginning of adulthood for 2.6 million young Americans who received diplomas. But for 40% of this group—the million-plus graduates who will not go on to college—it will be like stepping into a black hole. Most of them face a period of prolonged unemployment or low-paying, often part-time jobs. The reason: There is no link between school and work in the U. S. This is why the nation desperately needs a national system to help noncollege youths acquire skills and get channeled into stable, well-paying jobs.

Without such a system, most young adults in this group will drift from job to job in retail trade and service industries until they settle on a line of work in their mid-20s. Their lack of training and education depresses their income. In the 1980s, the earnings of men aged 24 to 34 who had only a high school diploma declined 9%, while the income of college-educated males went up 10%.

'CAREER-ILLITERATE.' Two years ago, a study commissioned by the William T. Grant Foundation coined the term "forgotten half" to designate the 20 million Americans aged 16 to 24 who don't go to college. They are among the 70% of the entire work force that does not have a four-year college degree—a critical group because it provides America's front-line workers in factories, stores, and offices. Yet the U. S. is the only industrial nation that does not have "a conscious national policy" to help noncollege youth make the transition from school to work, points out Samuel Halperin, director of the Grant study.

The problem begins in the schools. Most teachers know nothing about the workplace. Reflecting the society around them, they often do not stress the worth and dignity of blue-collar work. "By the 10th grade, children ought to have a sense of the world of work, but teachers are career-illiterate," says Tom J. Johnson, assistant superintendent of adult education in La Puente (Calif.). In addition, most teachers are judged on how well they prepare students for college. "We have produced a situation where you are nothing if you do not go to college," says Marc S. Tucker, president of the National Center on Education & the Economy, based in Rochester, N. Y.

Students who take vocational courses emerge from high school mainly with obsolete job skills and poor academic performance. As a result, according to a study recently issued by the National Center's Commission on the Skills of the American Workforce, most employers look down on a high school diploma. "All it signifies is 'seat time,'" Tucker says. But at the same time, companies do not demand high academic standards or tell the schools what job skills they will need.

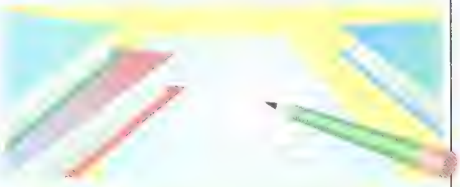
To bridge the gap between school and industry, the U. S. should establish a national system that combines work-site and classroom learning and prepares students for identifiable jobs. Such a concept is being pushed by many groups in and out of government, including the AFL-CIO and the Labor Dept. Probably the best-known foreign system is West Germany's dual school arrangement, in which teenage students are sorted by tests and channeled either to university preparation or a national apprenticeship program. One U. S. expert, Paul E. Barton, director of policy information at Educational Testing Service, advocates "a wholly Americanized version of something like the West German system but one in which students keep their options open to go on to college."

YOUTH CENTERS. The Commission on Skills has laid out the broad outlines of such a system (table). To be sure that youngsters acquire fundamental academic skills, this plan calls for all students, by the age of 16, to pass an examination demonstrating "an ability to read, write, compute, and perform at world-class levels." Youth centers would be set up to help dropouts and those who fail the test. Students who choose the vocational path would spend two to four years in a work-study program, working part time and attending classes at high schools, community colleges, and technical schools. Continued academic training would enable students to transfer into four-year colleges at any time.

At graduation, these students would be certified in one or more skills by a national board with business, labor and government members who would set nationwide standards for occupational skills. Local boards would be set up to manage the school-to-work transition as a cohesive system.

None of this could be accomplished by government decree or federal legislation. Business, labor, educators, and politicians would have to work together at the state and local levels. This would take enormous time, energy and cooperation, but the country's youth is worth it.

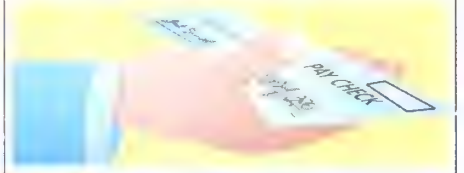
HOW A U.S. APPRENTICESHIP SYSTEM MIGHT WORK



STEP 1 High school student must acquire basic academic skills by age 16, usually at the end of the second year

STEP 2 Student who decides on a vocational course of study continues two to four more years of schooling together with on-the-job training. Length of time depends on the skills required for different occupations. Community colleges and technical schools provide most of the longer-term training

STEP 3 Graduate receives a professional or technical certificate based on standards set by a national board



STEP 4 Enters the work force

DATA: COMMISSION ON THE SKILLS OF THE AMERICAN WORKFORCE

THE WAR'S OVER.

And you've won.

Most technology companies —including us—have spent the last 10 years or so trying to beat the living daylights out of each other.

But who really got hurt in the crossfire?

Customers.

Business people who just had a job to do, but were forced to choose sides, not solutions.

That's why we're revolutionizing the focus of our entire company. And sending hundreds of applications engineering teams to work side-by-side with our customers.

We're looking toward you now. Not over our shoulder at IBM or anybody else.

We're looking at the way you work. The jobs you do. The problems you face. The goals you have. The answers you need.

And we're looking with an open mind.

The new Wang will create solutions based on your needs, not only our technology. Solutions that add value to established standards wherever possible, be it IBM, UNIX, Wang VS or whatever.

But let's not kid each other. We're no saints in business suits.

We're in this to win, just like anyone else.

But unlike anyone else, we know the only way we win, is if you win.

LET'S GET TO WORK. WANG

ENVIRONMENT

TOUGH COASTAL POLICIES LIMIT THE TYPES OF RECONSTRUCTION SOUTH CAROLINA IS ALLOWING AFTER HUGO

IN HUGO'S WAKE, A NEW STORM KICKS UP

Moves to curb building on the coast have developers fuming

After Hurricane Hugo destroyed her seaside arcade and ice-cream parlor last fall, Clara D. Nixon figured she would rebuild and start over. But the South Carolina Coastal Council had different plans. The council, which regulates coastal development, refused to issue construction permits to Nixon and hundreds of others. "Who are they to tell me what kind of building I can put up?" Nixon fumes.

In sweeping through the Caribbean and the Carolinas, Hugo took 79 lives and ripped up $4.2 billion of property. But now that the storm is over, environmentalists say they see some good coming out of the devastation. In Hugo's wake, many states and cities have taken steps to curb poststorm rebuilding. Congress also is moving to cut spending for infrastructure and insurance for private projects in undeveloped coastal areas. "Hugo gave us something to think about," says Orrin H. Pilkey, a researcher at Duke University in Durham, N. C. "The next hurricane will begin a general, final retreat from the coastline."

Nowhere is the debate over rebuilding hotter than in Charleston. In 1988, South Carolina adopted some of the toughest coastal policies in the country. After Hugo, environmentalists feared that the rules would be overturned by irate property owners. But the state has held fast. Officials have agreed to allow the rebuilding only of structures under 5,000 square feet—meaning no motels or condos. The state is also removing severely damaged seawalls and banning the construction of new ones.

WAITING PERIOD. The success of the South Carolina restrictions has encouraged other states to strengthen their rules or their enforcement of coastal development limits. Rhode Island, for example, has set a 30-day rebuilding moratorium along the coast after a hurricane hits. That, officials say, will give them time to survey damage a[illegible] declare permanent ba[illegible] Spot skirmishes in oth[illegible] coastal areas are yieldi[illegible] modest victories, too. "T[illegible] character of the shorel[illegible] is set only until the ne[illegible] hurricane," says Jo[illegible] Weingart, New Jersey's [illegible] rector of coastal resourc[illegible]

> In Rhode Island, property owners hit by a hurricane must now wait 30 days before rebuilding

Hugo cost U. S. taxpa[illegible]ers $1.5 billion, and so[illegible] lawmakers are tired [illegible] footing the bill for wh[illegible] many consider priva[illegible] benefits. So Congress [illegible] studying an amendment [illegible] the Coastal Barrier R[illegible]sources Act of 1982 th[illegible] would put hundreds [illegible] thousands of acres off-li[illegible]its to developers and b[illegible] federal monies for flood [illegible]surance, roads, bridg[illegible] and sewers on acrea[illegible] along the Atlantic, Gulf [illegible] Mexico, and Great Lake[illegible]

The most vocal opposition to the [illegible] has come from property owners such [illegible] Anne Keevan. Her family wants to bu[illegible] houses on several parcels it owns in t[illegible] Florida Keys. "We've been fighting th[illegible] for three years, and we'll probably fig[illegible] it for the rest of our lives," she sa[illegible] Some 110,000 acres of keys territo[illegible] were to have been put off-limits, b[illegible] that figure has now been whittled do[illegible] to 20,000 acres. Some 500,000 acres n[illegible]tionwide—with big chunks in Florida[illegible] are likely to stay in the bill.

'A MESS.' Florida officials wanted mo[illegible] acreage included. Despite the feder[illegible] contributions, development in ma[illegible] shoreline areas will mean higher cos[illegible] for the state. "I'm dreading what's g[illegible]ing to happen when something li[illegible] Hugo hits Key West or Tampa," sa[illegible] Paden Woodruff, an engineer with t[illegible] state's Natural Resources Dept. "It's g[illegible]ing to be a mess."

Such dire warnings don't bother Da[illegible] K. Meehan, president of Bankers Insu[illegible]ance Co. The St. Petersburg executi[illegible] says his company expects to write $[illegible] million in federal flood insurance polici[illegible] in Florida and South Carolina this ye[illegible] "Charleston just had their 100-year hu[illegible]ricane," he says. "What are the chanc[illegible] of that happening again?" The odds [illegible] another huge storm in the same sp[illegible] this year probably aren't high. But [illegible] Uncle Sam stops underwriting the risk[illegible] Meehan will probably look at them a [illegible] more closely.

By Antonio N. Fins in Miami, wi[illegible] Stephanie Anderson-Forest in Charlesto[illegible] S. C., and Bob Andelman in Tampa

BUFFALO

Hot Spot For Business

Buffalo is warming up to a new business boom!

Make Buffalo your business. Speak to readers all over the globe who will respond to Buffalo's surprising sizzle. Make plans to appear in the pages of the Special Advertising Section *Buffalo: The Hot Spot for Business.*

For more information, please call:
D. David Johnson, II, Account Manager
at 203-968-7141
or
Barbara J. Daly, Marketing Manager
at 212-512-6664

BusinessWeek
There is no second place.

EDITED BY AMY DUNKIN

Real Estate

SOME DREAM HOUSES ARE GOING ONCE, GOING TWICE . . .

Want to short-circuit the exhausting and time consuming search for a house? Try looking on the auctioneer's block. Once the unpleasant province of foreclosures, auctions are increasingly popular sales vehicles in today's sluggish real estate market.

The major auction action is still in houses and condominiums, although commercial properties are showing up more and more. And there will be further opportunities, as properties from failed savings and loan associations go under the hammer.

Auctions offer the advantages of speed and convenience for both buyers and sellers. The sale occurs at a designated time and place. When the gavel descends, that's it. Home sellers don't have to endure endless processions of gawkers who are "just looking, thanks." And buyers don't have to dicker with owners who overprice their houses.

RASH MOMENT. "People get emotionally attached to their home and are unrealistic about what it should sell for," says Joel Zegart, president of JBS & Associates, a Chicago auction firm. "But the market shows them reality." Zegart has a list of properties that were recently auctioned, which sold for 19% to 46% less than their asking price.

Auction participants risk ending up stretched financially. Some buyers get swept up in the frenzy of the moment and bid more money than they can afford. And sellers might receive less for their old house than they need to buy their new house. Says Dave Liniger, chief executive of Re/Max International, a large real estate brokerage: "Sellers [who don't take the auction route] are more comfortable knowing what the price is." Another downside for auction sellers is the fee, which can run as high as 10% of the sale price, compared with a broker's standard con mission of 6%.

The Resolution Trust Corp which is overseeing the S& bailout, plans to hold the firs auction of S&L commercia property in late August—dat and location to be announce The nationwide bidding mos likely will involve a satellit feed to various sites. Afte that, the RTC may hold regior al auctions for residentia property.

How do you find an auc tion? Many newspapers ru notices in their real estate a sections at least once a week listing upcoming auctions fo the next 60 days. The yello pages list auction houses, an

National Auctioneers ., whose headquarters in Overland Park, Kan. 541-8084), can mail you a tory of 5,000 members.

auction house can send ı brochure listing proper- along with such vital as square footage and assessment. Auctioneers lly schedule advance in- ions, so that prospective rs can look the place Bring along an engineer eck the furnace, plumb- and so forth.

IEST MONEY. To get into bidding, buyers typically show up with a certified for 5% of the starting rice of the property that ests them—or, if there's starting bid, a fixed unt set by the auctioneer. ing bidders hand over checks as partial down ent. Wise souls line up cing before they enter auction hall; if you can't n it after winning a bid, property goes to the next est bidder.

s also important to find the terms of the sale: whether or not there is a minimum bid and whether the seller is required to accept the highest offer (table). Sellers prefer minimum-bid auctions, which give them some assurance about their return. Corporate sellers prefer the reserve method, where the seller can scrap the winning bid—if, for example, it's too low. Company officers or boards of directors like to check the price before concurring on a sale. The best format from the bidder's standpoint is the absolute method, since competition is unfettered. Some say an absolute auction is good for sellers, too, on the theory that it draws more bidders and brings higher prices.

Most auctions have safeguards for bidders. A number of states give buyers a week after the sale to change their minds. While auctioneers may legally keep the down payments of bidders who back out, many don't do so, in an attempt to foster goodwill. Some states mandate that auction houses must post bonds to reimburse bidders in case any misrepresentation is proven.

BE COOL. Bidding demands discipline. Go into an auction with an idea in mind of how much money you are prepared to pay. And keep your wits about you. "People raise their hands for the wrong house," says auction chief Zegart. "Some bid against themselves: They make a bid and immediately top it before another party can make a bid." The auction experience is an intense one. There's a lot of shouting, jumping, and arm-waving. J. P. King Auction, one of the biggest auction houses, has aides who circulate among the crowd and blow whistles to pinpoint each bidder.

But the atmosphere is not like a tobacco auction, where the auctioneer's patter is at warp speed. If by chance you miss something, just ask the auctioneer to repeat it. Or hire someone else, usually a lawyer, to bid for you.

Don't worry about falling into the old movie gag in which an auction-goer yawns or stretches—and inadvertently buys a costly item. House auctions call for you to shout out a bid or give another sign of conscious intent. Besides, if you're seeking that dream home, you won't be doing much yawning. *Larry Light*

THREE KINDS OF REAL ESTATE AUCTION

MINIMUM BID Seller sets starting bid. No one can bid lower, but seller must accept highest bid

RESERVE Seller has the right to refuse any bid. Bidder must be told of seller's decision up to 48 hours after gavel goes down

ABSOLUTE The purest form of auction: No minimum bids, and seller must take highest offer. Draws biggest crowds

DATA BW

Leisure

TTING YOUR ET WET ON SAILBOARD

en years ago, lessons in windsurfing at a Club Med left me with the bruised knees in the ch West Indies. That was result of doggedly scram- back onto the sailboard every ungainly tumble. while the memory of my ted attempt faded, the al- of skimming across the r remained. So, with due ogies to my knees, I re- ly called Sailways, a hampton (N. Y.) wind- ing shop.

wner Jack Regan assured that technique was more ortant than strength, h were heartening words lapsed Nautilus user. say some instructors, en learn faster than men use they don't try to use muscle, but rely on finesse.

AH, THE GOOD PART: SKILL COUNTS MORE THAN STRENGTH

Sailways' gear for beginners consisted of a large sailboard (12½ feet long, 40 pounds) designed for stability and flotation, with a small sail. After learning how all the parts worked, I did a dry run on land. Many windsurfing schools start with a simulator—a board that pivots on a stand a few inches above the ground.

Years ago, it seemed a Herculean task to lift the sail out of the water—the first step. But with my present bikini of a sail, it was fairly easy, though wobbly. I just bent my knees and leaned back, away from the sail, using leverage to draw the line attached to the sail slowly out of the water, hand over hand. (A common mistake is arching your back and not bending your knees enough.) Then, the wind was in my sail, and my instructor was fast becoming a speck on the distant shore. I soon took a dunk—but I'd done my first windsurfing.

Beginners should practice in breezes that blow toward or along the shore, so they don't get swept far from land. And when you inevitably fall, try to fall flat, so that your plunge is shallow—you never know what's beneath you.

Private lessons can run around $35 an hour, including rental equipment. Schools also offer six-to-eight-hour group-certification programs for about $50 to $100. You can get names of schools from the American Boardsailing Industries Assn. (800 333-ABIA). Sailboards alone range from about $700 to $3,000, and the rig (everything but the board) can cost an additional $500. Beginners usually buy a package for about $1,200.

A good primer: *A Beginner's Guide To Zen And The Art of Windsurfing* ($8.95; Amberco Press, P. O. Box 5038, Berkeley, Calif. 94705). To follow the scene, there's *WindRider* ($14 for eight issues; World Publications, 330 W. Canton Ave., Winter Park, Fla. 32789). *Suzanne Woolley*

Potables

DISCOVERING THE RICH REDS OF ITALY

You can tell from the Tuscan restaurants popping up everywhere: Americans are wilder than ever about Italian cooking. But many people draw a blank when it comes to finding the right wine to drink with an Italian meal. That's a shame, because Italy turns out some of the world's best.

Sadly, there are few top-notch Italian whites available in the U. S. Italy's glory is its big, full-bodied reds from Piedmont and Tuscany.

Vintners in those regions are experimenting with new varieties of red grapes and are aging their wine in small oak casks. The result is a fruitier, less tannic wine. But because many new-wave reds are bottled under proprietary names, you have to seek out top producers.

***VINO ROSSO*: TOP PRODUCERS—AND PRICES**

If you want to try the Ferraris of Italian reds, start here (prices may vary):

- '85 Barolo "Ginestra" (Clerico). Deep and smoky, and much less harsh than the traditional Barolo ($30).
- '85 Barbaresco "Sori San Lorenzo" (Gaja). A complex wine with intense concentrated fruit ($75).
- '85 Chianti Classico riserva (Il Palazzino). A medium-bodied wine with an almost-sweet black-cherry taste ($25).
- '85 Flaccianello (Fontodi). An earthy Sangiovese wine with a seductive cherry-currant aroma ($36).
- '86 Ornellaia (Marchesi Lodovico Antinori). A dark and plummy Merlot with a captivating violet fragrance ($3
- '85 Sammarco (Castello d Rampolla). This impressiv Cabernet blend has lingerin fruit and hints of cedar ($4
- '83 Tignanello (Antinor Made from 80% Sangiove and 20% Cabernet, it's like rich claret ($34).
- '85 Solaia (Antinori). Most Cabernet. Impressive, wi immense levels of concentra ed black-fruit flavor balanc against oak ($90).
- '83 Sassicaia (Marche Incisa della Roccheta). Italy great Cabernet, with balanc an appealing berry bouque and a long aftertaste. Mea to age ($55).

All Italian wines from gre vintages, such as '82 and '8 need to age a few years. you must drink the super-re when they're *bambini*, po them into a flask a few hou ahead of time. Exposure the air smoothes the roug edges and brings out the full perfume. *Lee Walc*

Smart Money

HOW TO HITCH A RIDE ON SOARING OVERSEAS MARKETS

Were you among the mutual fund investors content to ride along as U. S. stock prices rose 27% last year? That wasn't a bad gain—but nothing like the Turkish market's 300% climb or Argentina's 136% increase, according to one index used to track international markets. Alerted by such surges, U. S. fund managers are studying new buying opportunities in emerging overseas stock markets.

Individual investors can get in on the ground floor through an increasing number of global and international funds that buy—or may soon be buying—stocks in virtually every country, from Argentina to Zimbabwe. But this type of investment is not for the squeamish. If you don't keep a close eye on the news, you could find yourself not-so-distantly involved in, say, the economic mess which has sent the Brazilian market plunging 34% since the end of last year.

Watchfulness and patience, though, can produce hefty rewards. The Thailand market's 85% jump last year, for example, drew the attention of Putnam International Equities, a $600 million global fund. Although there has been a dip this year of about 9%, "we're still watching it closely," says David Thomas, senior vice-president. And optimism about Indonesia's prospects led the fund to apply for the purchase of some new issues there.

CLOSE ENCOUNTERS. In foreign markets, recognizing a gain or loss means taking into account any changes in local currency values vs. the dollar. Simplifying things for the serious international investor, the newly published *Emerging Stock Markets Factbook, 1990* has comparative indexes for 30 countries, plus composite indexes for the 19 largest markets, Asia, and Latin America. A copy is $45 from International Finance Corp. (202 473-9110), an affiliate of the World Bank.

Whatever its past performance, each country's market is influenced by local customs and politics. "That's why we work closely with knowledgeable brokers on the scene," says Ted Wendell, a principal at Mars & Cunningham-Castegren which manages Ivy International, a $77 million fund in vested in 18 countries. An Nancy Langwiser, who man ages the $75 million MFS Life time Global Equity Trus says that due diligence mus include visits abroad wit government officials.

One *Factbook* table track the 1989 performances of sin gle-country funds on th New York and London ex changes. Typically, a ne closed-end fund, which sell a fixed number of shares, in tially commands a premiu from investors seeking ground-floor position. "Kee in mind that it can take ex ceptional growth to justify premium," Thomas warn And some premiums rapidl turn into discounts.

For additional data o overseas markets or comp nies whose stocks may b available through America depositary receipts, the *Fac book* lists officials at 34 e changes in emerging cou tries—even including th new ones in Budapest an Belgrade. *Don Dun*

HOW 'EMERGING' MARKETS ARE FARING

	Change in value Percent	
	1989	1990*
ARGENTINA	136%	-29%
JORDAN	-4	7
KOREA	-3	-28
PAKISTAN	-2	-3
TAIWAN	95	-4
THAILAND	85	9
TURKEY	301	20
VENEZUELA	-35	85

*IFC index through Apr. 30
DATA INTERNATIONAL FINANCE CORP

There's only one PBX system that won't be blown away by the future.

When the future comes knocking, only one PBX has both the flexible architecture and power to answer the challenge. The Fujitsu F9600.™ Unlike others who've retrofitted older PBXs, the F9600 was designed from the start to take advantage of emerging telecommunication services—like ISDN and broadband. For starters, its distributed processor architecture lets you add capacity and functionality simply by adding processor modules. Its single stage switching matrix provides smooth growth and fast processing of voice, data and, when you need it, broadband services such as video. And thanks to its high-level applications-oriented software, new applications can be added as quickly as your needs change. Today, the system is performing worldwide in over 1,300 installations. Which shouldn't come as a surprise, considering Fujitsu Ltd. is a pioneer in ISDN technology and an $18 billion global leader in computers and telecommunications. To see just how much better the F9600 really is, call Fujitsu Business Communication Systems at 1-800-654-0715. You'll find that with the F9600, the future's nothing to be afraid of.

FUJITSU

FUJITSU BUSINESS COMMUNICATION SYSTEMS

© 1989, Fujitsu Business Communication Systems. F9600 is a trademark of Fujitsu Business Communication Systems.

Home

CALLING IN THE CLOSET CONSULTANTS

Getting dressed one morning, I realized what needed organizing in my life: the five small closets in our house. For years, my husband and I had waded through their clutter, searching for an elusive blue blazer or brown belt. Now, the time had come for professional help.

So I called Perfect Closet, a custom closet-design company in Grosse Pointe Farms, Mich. The owner came for a visit, measured the closets, and promised that I'd have 50% more space after the company installed a system of rods and shelves in just two of them. "Sure," I thought, as I shook on the deal and made out a check for $375 per closet.

If you opt for a professional organizer, expect to pay at least that much. At California Closet, a 100-store franchise chain based in Woodland Hills, Calif., adjustable systems for a five-foot-wide closet start at $300 to $450. Another franchiser, Closettec of Dedham, Mass., charges $375 to $450 to start. By the time you add such accessories as a velvet-lined jewelry drawer or a motorized carousel to spin your clothes to you, a finished installation can cost more than $1,000.

SORTING OUT. To get ready for the make-over, we removed our closets' existing poles and shelves and painted the interiors. Then the installers arrived. In less than four hours, we had a new array of rods and adjustable shelving units. In addition, a company representative had rehung or folded our clothes, sorting them by color, style, and season.

Items that had been strewn among various closets now fit into a tidy his-and-hers pair. Sweaters that had been stuffed in drawers now nestle neatly on their own shelves.

My eight-foot-wide closet is now totally compartmentalized, with two rods on the right for suits, blouses, and skirts, and a rod and three shelves on the left for dresses, slacks, and purses. A floor-to-ceiling unit with 12 shelves runs down the center. My husband's closet has a slightly different configuration, to fit his needs.

If you're handy with a dr and screwdriver, you can us ally save yourself a bundl California Closet will give yo a 20% discount off i price if you install th system it designs for yo And many home-improv ment stores sell ki of shelves and rods th you can assemble to rec a standard-size close Prices run from $20 for basic shelf unit to sever hundred dollars fo enough material to org nize the closet from top bottom. Storage and org nizational items can als be ordered by mail fro the Hold Everything cat log (415 421-4242).

Six weeks have passe and I'm still a believe True, I haven't kept m sweatsuits in color-coordina ed order, but at least they' not on the floor. Has a cu tom storage system solved a our woes? Well, no. What d you do with three empt closets? *Kathy Seymo*

Computers

VOYAGE TO THE BOTTOM OF THE PC

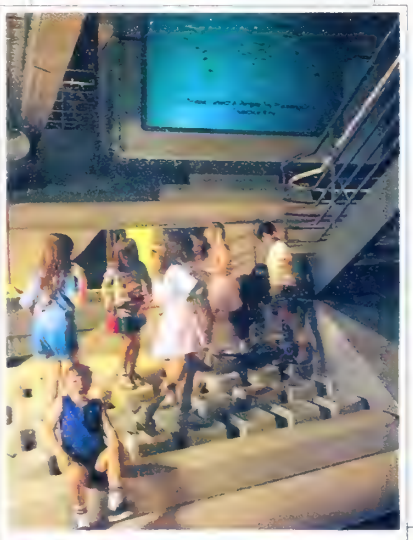
Once you start wondering what really goes on inside the putty-colored boxful of electronics on your desk, it's time to take a walk—a walk through the world's largest PC.

At Boston's Computer Museum, a 50-foot-high mock-up combines bits-and-bytes realism with animation to demystify the arcane world of computers. "Lots of people use computers without knowing how they work. This makes those workings understandable," says Executive Director Oliver Strimpel, who dreamed up the $1.2-million Walk-Through Computer and won funding for it from software pioneer Mitch Kapor, the Sloan Foundation, and Digital Equipment.

To activate a travelogue program, you step on a keyboard with two-foot-wide keys and spin a huge trackball game-control device. Like a giant Mac, a mammoth display flashes images of cities. Inside the computer, six-foot chips and a room-size disk drive come alive, as videos explain how the program works.

RED-FACED. The $6 admission also lets you get the lowdown on the industry's next leap: multimedia computers, which mix sound and pictures. Or you can let a computer colorize your face in dramatic reds and blues, the way color is added to black-and-white movies. Other exhibits include the first supercomputer, the five-foot-tall Cray-1, and the original mini, a DEC PDP-8. There's also a Tinker Toy computer, a fanciful wood-and-string replica built by superdesigner Danny Hillis. An animation theater shows videos—computer-generated, of course.

Call 617 426-2800 for museum hours and location. Tracking the evolution of the technology of that box on your desk can help make it a little less inscrutable. *Gary McWilliams*



THE KID-FRIENDLY KEYBOARD

Worth Noting

■ **CHECKING UP.** Before hirin a financial planner, chec with the new Financial Pla ning Resource Foundation. I data bank lists professiona reprimanded by the SEC other regulators. A $2-pe minute call to 900 786-72 can uncover whether a pla ner is in the "negative file" 1,000 names so far.

■ **BIG BOATS.** A $450 two-da symposium on buying, cha tering, and paying taxes superyachts of 100 feet more takes place in New Yo on Sept. 20-21. It's at t World Financial Center North Cove Yacht Harb (212 938-9000), where doc space costs $4 per foot a da

■ **FAST FAX.** For $10, Wor man Publishing's *Fax Th Book* has 100 humorous tea out fax cover sheets. Ea has a cartoon to reinforce t message. An example? character winding up to toss boomerang says: "Get rig back to me on this."

There are

hundreds of

beautifully appointed

brownstones and

prewar apartments

in Manhattan.

But how many

accept guests?

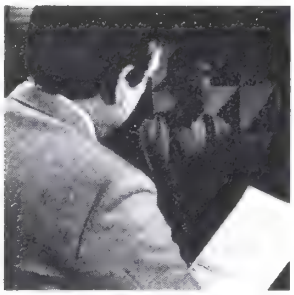
THE MARK

A New York Hotel. Madison Avenue at East 77th Street. (212) 744-4300. For reservations, call (800) 843-6275.

84A-CA

The press: full court

and one-on-one.



Charging. Dodging. Challenging. Guarding. One side on the offensive. One side on the defensive.

When the press faces off against public figures, it sometimes seems like a sporting event. But it's more serious than that. Because often, at the heart of the issue is the First Amendment. And its guarantees of a free press.

Some say the rights of the press should be taken away. They say the press goes too far. Sometimes even the press questions how far is too far.

Others say the rights of the press protect the rights of the people. Your right to be informed about things that affect your life and your right to decide.

The debate will continue.

But one thing is for sure. You won't always agree with what the press has to say.

And it's your right not to.

To learn more about the role of a free press and how it protects your rights, contact the First Amendment Center at 1-800-542-1600.

If the press didn't tell us, who would?

A public service message of The Ad Council and The Society of Professional Journalists.

Ad Council

84B-CA

Let the Poor and Hungry Feed Themselves!

For just $100 they can.

nce 1961, ACCION International has been helping the oor and hungry feed themselves in poor urban and ral communities throughout Latin America and the aribbean. In these desperately poor communities, e've been providing hard-working men and women ith otherwise unattainable fair-rate small business loans. ithout these fair-rate loans, thousands of shoemakers, akers, artisans and street vendors would be unable to make a living. But thanks to ACCION, people who only one year ago were barely able to keep their families alive, today have paid their loans back in full and have been given a chance to better their lives.

More importantly, they've been given back their dignity.

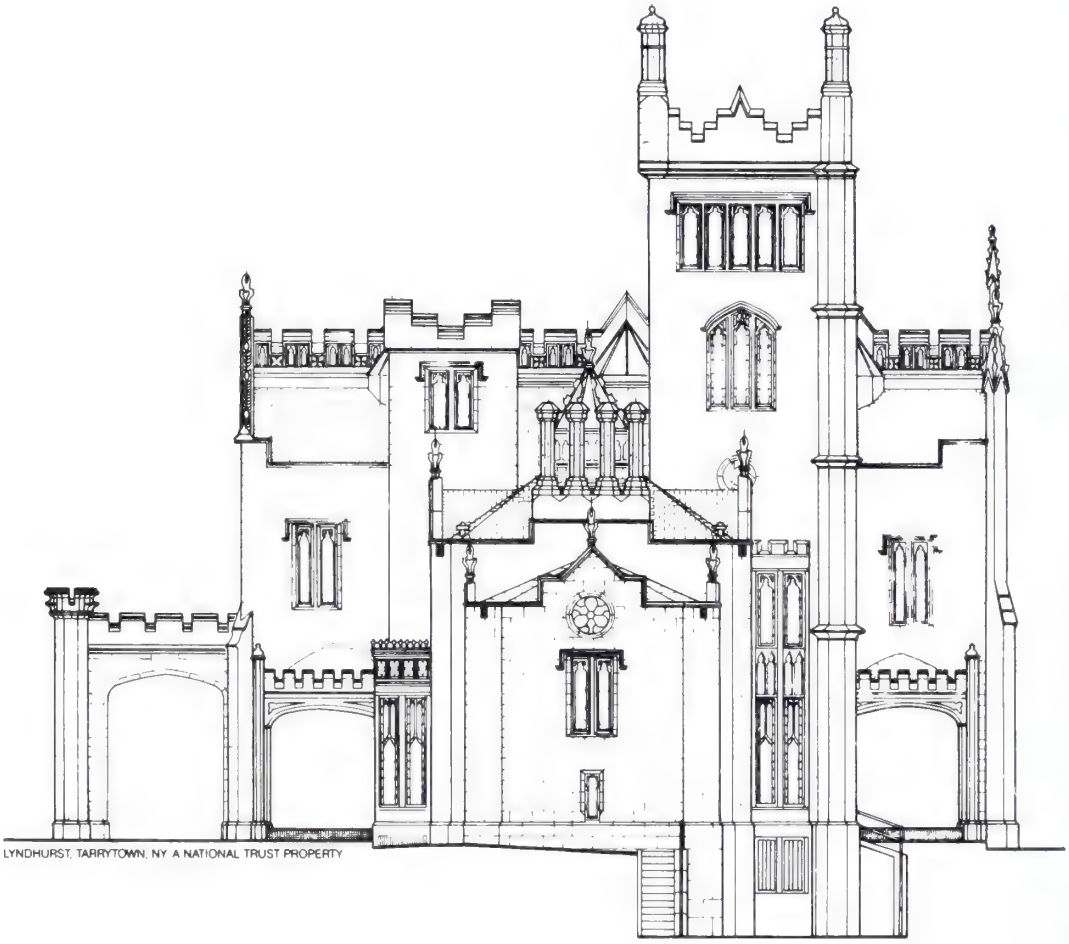
All it takes is for you to believe in them.

For more information or to send a contribution, write to ACCION International, 1385 Cambridge St., Cambridge, MA 02139 **617-492-4930.**

ACCION International

84C-CA

PRESERVATION
PLAN ON IT



LYNDHURST, TARRYTOWN, NY A NATIONAL TRUST PROPERTY

Planning on restoring a house, saving a landmark, reviving your neighborhood?

No matter what your plans, gain a wealth of experience and help preserve our historic and architectural heritage. Join the National Trust for Historic Preservation and support preservation efforts in your community.

Make preservation a blueprint for the future.

Write:

National Trust for Historic Preservation
Department PA
1785 Massachusetts Ave., N.W.
Washington, D.C. 20036

84D-CA

ex to Companies

x gives the starting page for a story or fea- a significant reference to a company. Most ies are indexed under their own names. ies listed only in tables are not included.

4

ustrie 46

vn & Sons 64

Airways 46

ines 36

Cyanamid 32

Express 60

International 66

Ship Building 56

ontreal 40

surance 78

rust 63

ationale 40

rns 17

Steel 56

7, 40, 46

er 40

2

lkan 56

ways 46

Boston 60

Schweppes 42

Depot et nt 40

Soup 42

anac 40

5

5

2

r 36

acific 46

52

33

63

2

a 66

Palmolive 32

on Engineering 34

Coniston Partners 30

Curaflex Health Services 5

D

Daiwa 60

Dataquest 69

DeSoto 66

Digital Equipment 69

Discovery Airways 36

DMR Group 40

Donaldson, Lufkin & Jenrette 30, 64

Dresser Industries 52

Drexel Burnham Lambert 33

Drug Guild Distributors 54

Dynasty Classics 64

E

Environmental Elements 64

Ericsson 14

F

Fairchild Semiconductor 52

Federated Department Stores 33

Fidelcor 62

First Chicago 33

First City Bancorp 33

First Fidelity Bancorporation 62

Fleer 64

Fuji Heavy Industries 46

G

Garfinckel's 33

Gearhart Industries 52

General Electric 46

GM 31

Goldman Sachs 60

Goldstar Electron 69

H

Halliburton 52, 53

Harris 69

Hawaiian Airlines 36

Health Source America 5

Henkel 32

Hewlett-Packard 36

Home Nutritional Services 5

Honda 58

Honeywell 34

Hydro-Québec 40

Hyundai Electronics 69

I

Iberia Airlines 46

IBM 73

Intel 69

International Lease Finance 36

J

J.P. King Auction 80

Jaco Electronics 69

Jacobs Suchard 42

Japan Airlines 46

JBS & Associates 80

Johnson & Johnson 40

K

Kawasaki Heavy Industries 46

Kay Jewelers 66

L

Lavalin 40

Learjet 40

Litton 52, 56

M

Mazda 58

McDonnell-Douglas 46

McGraw-Hill 22

Mellon Bank 62

Merrill Lynch 60

MidLantic Bank 54

Mitsubishi Heavy Industries 46

Mitsui 36

Mylan Laboratories 54

N

Nansay 36

NEC 69

Nestle 42

New England Critical Care 5

Nihon Unisys 36

Nikko 60

Nissan 58

Nomura 60

Northrop 46

Northwest Airlines 46

P

Par Pharmaceutical 54

PepsiCo 56

Philip Morris 42

PNC Financial 62

Procter & Gamble 32

Prudential-Bache Securities 60

Q

Qantas 46

Quad 54

Quebecor 40

R

Raleys 32

Re/Max International 80

Richardson-Vicks 32

RJR Nabisco 42

Rockwell International 73

Rowntree 42

Royal Bank of Canada 40

S

Safeway Food Stores 42

Salomon Brothers 60

Samsung Electronics 69

Sasebo Heavy Industries 56

Satellite Movie 73

Schlumberger 52

Shearson Lehman Hutton 60

SmithKline Beecham 5

Société Nationale Elf Aquitaine 52

Stanley (Morgan) 30, 60

Sun Life Assurance 40

Sutton Holding 66

T

Texas Instruments 69

Toshiba 69

Toyota 58

Trout & Ries 31

TRW 73

TW Services 30

U

UAL 30

Unilever 32, 42

Unisys 36

United Airlines 46

United Biscuits 42

United Technologies 73

USAir 46

V

Volvo 14

W

Walgreen's 54

Western Atlas International 52

Western Digital 69

Y

Yamaichi 60

1	Exxon
2	General Motors
3	Mobil
4	Ford Motor
5	IBM
6	Texaco
7	E I du Pont
8	Standard Oil (Ind)
9	Standard Oil of Cal
10	General Electric
11	Gulf Oil
12	Atlantic Richfield
13	Shell Oil
14	Occidental Petroleum
15	U S Steel
16	Phillips Petroleum
17	Sun

27 million Americans can't read. And guess who pays the price.

Every year, functional illiteracy costs American business billions.

But your company can fight back...by joining your local community's fight against illiteracy. Call the Coalition for Literacy at toll-free **1-800-228-8813** and find out how.

You may find it's the greatest cost-saving measure your company has ever taken.

A literate America is a good investment.

Ad Council Coalition for Literacy

The Writer:

For more information about WordPerfect 5.1, see your local dealer, or call us at (800)-526-5178.

The Producer:

To see the HP LaserJet III in action, just see your local dealer.

And A Cast Of Thousands

With WordPerfect 5.1® and the Hewlett-Packard LaserJet III printer, it takes no time at all to produce blockbuster work.

Everything you do in WordPerfect sparkles. From tables, to a variety of images, to type styles that could play on a marquee. WordPerfect includes 1,500 different characters, and the HP LaserJet III prints all of them. Even equations dance on the printed page.

And with WordPerfect pull-down menus, with or without mouse support, you've got one of the easiest, yet hardest working word processors in the business.

Now add the unmatched performance of the HP LaserJet III printer and bring on the show. HP's new Resolution Enhancement technology gives you the best possible 300 dpi laser printing. And with HP's enhanced PCL5 printer language, including HP-GL/2 vector graphics and scalable typefaces, anything you do can reach incredible proportions. Finally, curves really curve. And type begs for a readin

Of course, it takes more than talent make it in this business. It takes the right co nections. Hewlett-Packard offers an extensive networ of trained authorized dealers. And with WordPerfect, you'll fi over 600 service people ready to help in a supporting role.

WordPerfect 5.1 and the HP LaserJet III printer. Some performances just get better every time you see them.

WordPerfect
CORPORATION

1555 North Technology Way Orem Utah 84057
Tel: (801) 225-5000 Telex: 820618 Fax: (801) 222-4477
For more information call us at (800) 526-5178.

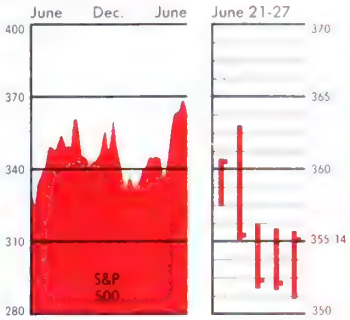
WordPerfect is a registered trademark of WordPerfect Corporation in the United States. 1990 WordPerfect Corporation. All other brands and product names are trademarks or registered trademarks of their respective companies.

vestment Figures of the Week

ENTARY

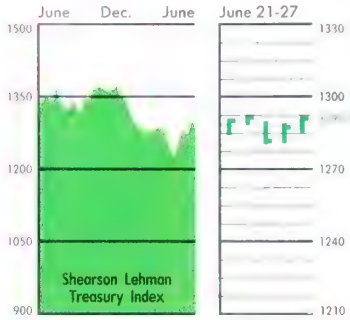
ck market took its lumps ek. Computer-driven sell ns sent stocks plummeting ts on June 21. The bond staged a mild rally, but uyers shrugged off Presi- ush's June 26 statement would raise taxes in order k the deficit. On June 27, spect for disappointing quarter profits increased &T's disclosure of subpar ly earnings. Still, the tech- dicators point to a market the weeks ahead.

STOCKS



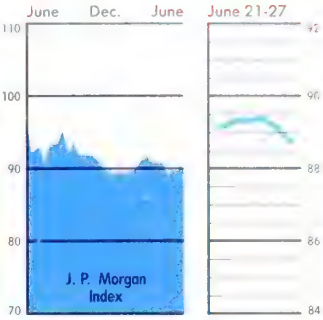
52-week change +9.0% | 1 week change −1.1%

BONDS



52-week change +3.8% | 1-week change +0.3%

THE DOLLAR



52-week change −5.7% | 1-week change −0.4%

RKET ANALYSIS

STOCKS	Latest	% change Week	% change 52-week
ONES INDUSTRIALS	2862.1	−1.1	14.3
MPANIES (Russell 1000)	184.8	−1.1	7.2
COMPANIES (Russell 2000)	167.2	−0.6	−2.1
MPANIES (Russell 3000)	196.9	−1.1	6.4

GN STOCKS	Latest	% change (local currency) Week	% change (local currency) 52-week
N (FINANCIAL TIMES 100)	2373.5	0.1	7.4
(NIKKEI INDEX)	32,312.8	0.7	−2.8
TO (TSE COMPOSITE)	3519.3	−0.3	−6.6

FUNDAMENTALS	Latest	Week ago	Year ago
90-DAY TREASURY BILL YIELD	8.1%	8.0%	8.3%
30-YEAR TREASURY BOND YIELD	8.5%	8.5%	8.1%
S&P 500 DIVIDEND YIELD	3.2%	3.2%	3.4%
S&P 500 PRICE/EARNINGS RATIO	16.3	16.5	12.7

TECHNICAL INDICATORS	Latest	Week ago	Reading
S&P 500 26-week moving average	343.2	342.9	Positive
Stocks above 26-week moving average	42.9%	45.9%	Neutral
Speculative sentiment: Put/call ratio	0.40	0.36	Neutral
Insider sentiment: Vickers sell/buy ratio	1.04	0.98	Positive

USTRY GROUPS

BRIDGE INFORMATION SYSTEMS INC.

WEEK LEADERS	% change 4-week	% change 52-week	Strongest stock in group	% change 4-week	% change 52-week	Price
TH CARE SERVICES	11.3	31.4	BEVERLY ENTERPRISES	15.0	−29.2	5¾
ACCO	7.7	23.7	PHILIP MORRIS	10.3	31.6	46⅞
SEHOLD PRODUCTS	5.8	35.3	UNILEVER N. V.	7.1	28.5	84⅝
MERCIAL SERVICES	4.9	−4.6	ECOLAB	9.7	−2.3	26⅞
ICAL PRODUCTS AND SUPPLIES	4.1	15.1	MEDTRONIC	7.4	63.9	79½

WEEK LAGGARDS	% change 4-week	% change 52-week	Weakest stock in group	% change 4-week	% change 52-week	Price
IALTY APPAREL RETAILERS	−10.8	22.4	GAP	−16.0	28.5	54⅝
RSIFIED MACHINERY	−10.1	10.5	CATERPILLAR	−22.4	−11.8	52½
MINING	−9.1	7.7	HOMESTAKE MINING	−10.5	24.8	17
AND GAS DRILLING	−6.7	31.4	ROWAN	−7.6	54.0	12⅛
RE TIME	−6.6	−37.5	BALLY MANUFACTURING	−25.0	−64.5	9

TUAL FUNDS

MORNINGSTAR INC

RS

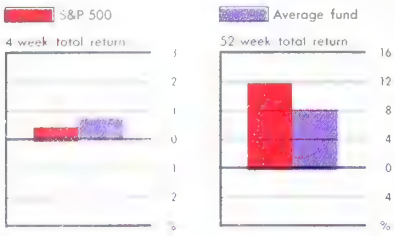
ek total return	%
ITY STRATEGIES	9.8
UNITED KINGDOM SMALL COMPANY	6.4
LITY SELECT BIOTECHNOLOGY	6.0

ek total return	%
ITY STRATEGIES	56.3
ANCIAL STRATEGIC HEALTH SCIENCES	48.0
LITY SELECT ENERGY SERVICE	46.9

LAGGARDS

Four-week total return	%
STRATEGIC INVESTMENTS	−16.0
UNITED SERVICES GOLD SHARES	−15.2
STRATEGIC GOLD/MINERALS	−12.4

52-week total return	%
NATIONAL REAL ESTATE INCOME	−18.6
BLANCHARD PRECIOUS METALS	−17.9
STRATEGIC INVESTMENTS	−16.5



LATIVE PORTFOLIOS

DATA RESOURCES INC.

amounts ent the present of $10,000 ed one year each portfolio

ages indicate y total returns

U. S. stocks	Money market fund	Treasury bonds	Foreign stocks	Gold
$10,990	$10,716	$10,447	$10,279	$9,442
−1.92%	+0.15%	−0.54%	0.23%	+0.20%

on this page are as of market close Wednesday, June 27, 1990, unless otherwise indicated. groups include S&P 500 companies only; performance and share prices are as of market close June 26. Mutual fund returns are as of June 22. Relative portfolios are valued as of June 26. A more detailed explanation of this page is available on request

THE RIGHT WAY TO RAISE TAXES

President Bush's concession that taxes should be raised is an opportunity to drag the U. S. fiscal system kicking and screaming into the harshly competitive industrial world of the 1990s. The debt-driven consumption binge of the 1980s is over, and the U. S. must finally get its financial house in order. Global economics make the priorities crystal-clear.

Savings and investment must be bolstered, and consumption must be cut. This is the main way that government can contribute to economic growth. Here are the steps to take:

Accept the failure of Gramm-Rudman, and replace it with a long-term federal budget. Congress has circumvented Gramm-Rudman in a thousand ways. Gramm-Rudman is a year-to-year approach, vulnerable to the lowest kind of pressure-group politics. What is needed is a much longer-term plan to control spending. Right now, the federal government is simply taking too much of the country's supply of savings. A longer-term budget, with a special capital account to foster investment and production, is a better alternative. The President should also be given a line-item veto. Congress has consistently shown that it does not have the political will to resist the demands of special-interest groups.

If higher taxes are necessary, we should tax spending, not income. How else to spur investment and saving? A national sales tax or value-added tax, similar to that overseas, would cut consumption and foster exports. To spare the working poor, such items as food and clothing can be exempted or rebates granted on income tax. In any case, higher taxes on income should be a last resort. The Reagan-era income-tax cuts are having a beneficial effect. It is politically tempting to eliminate the income-tax bubble, the drop back down from 33% to 28% for those with the highest incomes. But that temptation should be resisted.

Reality also demands a higher gasoline tax. In the U. S., combined federal and state taxes average only 24¢ a gallon; the comparable tax in Germany is $1.46 and in Japan $1.6 Rebates to the working poor who use cars to get to wor would ensure equity. For every penny of additional gasolin tax, the Treasury would get $1 billion in revenues. Raisin gasoline taxes by, say, 50¢ a gallon over a five-year perio would go a long way toward cutting the budget deficit. An of course, it would spur energy conservation and reduce th oil-import bill.

Quite clearly, spending must be cut, but here too, the go should be to enhance productivity. Incentives to boost U. S productivity should remain fully funded. Money for educa tion and all forms of human capital should be maintaine and possibly increased. But other spending must be cu That includes the military.

Entitlements for the middle class, however, are where th big bucks are and where painful cuts must come. Suc entitlements accounted for 40% of federal spending in 198 up from 31% in 1970 and 25% in 1960. Social Security bene fits to the elderly in particular have exploded, while th needs of the young have gone unmet. A bigger tax on Socia Security proceeds above a certain income level is in order.

So far, there has been a huge failure of will on the part o both the President and Congress. Ironically, the America people have shown that they are willing to support ta hikes, provided that the money is well spent. They don' trust their own political representatives, however, to behav in a responsible way. That is clearly the message fron California's passage of Proposition 111, which raised taxe but targeted them specifically for infrastructure spending.

President Bush has shown courage in changing his min and offering to raise taxes. Congress must now show th same kind of political courage and cut spending. The alterna tive to dealing responsibly with the public's money is steady slide in global competitiveness, living standards, an world leadership.

LIVING WITH A FREER QUEBEC

Canada's failure to create a constitutional home for Quebec inside a broad Canadian federation is unfortunate. It will certainly weaken Canada's voice on the world scene, and it may weaken the country economically as well. The balkanization of Canada is a worst-case scenario that no one should applaud.

Yet it appears likely that, in one way or another, the Canadian federation will not hold. What should America's response be to the possible breakup of its largest trading partner? The U. S. should take no side but must accept reality: Quebec appears more determined than ever to carve out a separate place for itself. Quebec's political leaders are determined to assert themselves in managing their manpower, labor, immigration, and education policies, even if they choose to remain within a Canadian framework in the years immediately ahead.

The big challenge for the U. S. is to keep alive the momen tum for a broader North American market. What is needed is a framework that would allow Quebec to seek its owr course, accommodate the rest of Canada, and foster the latest initiatives for freer trade between the U. S. and Mexi co. Right now, the flow of trade and investment across the Canadian and Mexican borders is exploding, but the creation of a North American community is taking place piecemeal President Bush seems to be taking the first steps, in recog nizing the need for a broad free-trade zone, eventually en compassing the whole Western hemisphere. The specter of balkanization must not haunt the Americas.

ESS WEEK
July 16

The leaders in market value in 25 countries. How they did in sales, earnings, and stock performance PAGE 111

BusinessWeek

3 9042 02349847 7

Y 16, 1990 A McGRAW-HILL PUBLICATION $2.00

BANKS

S BIG TROUBLE BREWING?

Commercial banks aren't about to go the way of the S&Ls. But many are plagued by shaky loans and weak profits. That's bad news for borrowers, financial markets, and the economy.

PAGE 146

BURLINGAME
JUL 6 1990
LIBRARY

**********CAR-RT-SORT**CR30
0602 10581116O SEP91 T02
BURLINGAME PUBLIC LIBRARY
480 PRIMROSE RD
BURLINGAME CA 94010

© Digital Equipment Corporation [illegible] and Digital [illegible] trademarks of Digital Equipment Corporation

"Digital's solution took TWA Getaway Vacations where we wanted to go – two years ahead of the competition."

Craig Pavlus
President
WA Getaway
Vacations

"Today's customers want the ease of a package tour, while choosing their own dates, destinations, even accommodations. We needed a system to handle the complexity of servicing those choices, in real time. Digital found the perfect third-party software, custom-designed a system around it, then turned it on in under three months. No other computer company could have done that.

"With Digital, from a single desktop computer we book, price and confirm an entire vacation — flight, hotel, transfers, information that's from different sources—in less than six minutes. We trust this system so much, we guarantee all reservations and all prices. So far, we've managed 60% more business this year with just 5% more payroll.

"What's next? Repeating our success globally, wherever we set up shop. Digital's given us two years of strategic advantage. That's two years we've been able to offer our customers what Digital gives us: responsiveness and choice the competition is hard-pressed to match."

The rewards of working together.

Digital plans, designs, implements, and fully supports systems specific to the demands of your company, and your industry. They are solutions that work, in real time, in the real world.

Today, Digital's custom-designed systems give you an elegantly simple way for your people to work together more productively, more creatively, more efficiently, more competitively.

To learn more, write to Digital Equipment Corporation, 129 Parker Street, Maynard, MA 01754-2198. Or call your local Digital sales office.

A way to work together like never before.

Digital has it now.

Before It Saw The Light
It Saw The Light Of Cour

It's called a light-fade test. For hours on end, various surfaces and materials of the LS 400 were blasted as if by the sun.

Why? Because contrary to th old cliché, there is no such thing a "timeless beauty." In fact, beauty very much a factor of time.

' Day, ss Days.

The engineers at Lexus know hat is why an entire task force reated to investigate ways of ng age and maintaining the value of your investment.

The result is a luxury sedan whose luxury was fashioned with one eye to the future as well as the present.

The optional handworked leather on the seats and trim is designed to resist bleaching by the sun. The burnished California Walnut on the doors and center console is designed to resist fading and cracking. And the exterior finish incorporating up to 42 steps is designed to maintain its rich gloss and luster.

In all, 96 items were studied as part of our anti-aging program. When a surface proved too sensitive to sunlight or the oils from human skin, the offending material was reformulated, again and again if necessary.

So see the dealer nearest you to discover what sets the LS 400 apart: Any car can be new today.

We want to be new tomorrow.

LEXUS

The Relentless Pursuit Of Perfection.

Lexus, A Division Of Toyota Motor Sales, U.S.A., Inc. Lexus reminds you to wear seat belts and obey all speed laws. For more information, call 800-872-5398 (800-USA-LEXUS).

NUMBER 3169

BusinessWeek

JULY 16,199

A BUMPY LANDING FOR BANKS: DONALD TRUMP ISN'T THE ONLY HIGHFLIER WHOSE FALL WILL HURT LENDERS—AND DEPOSITORS

Cover Story

146 ARE BANKS IN BIG TROUBLE?
A recoiling real estate market is the latest setback for banks. They're writing off $20 billion in loans annually—five times the amount at the dawn of the 1980s. That saps earnings, pushes bank stocks lower, and undermines commercial banking just as it faces unprecedented competition from foreign banks and vigorous domestic challengers

148 BUSINESS WEEK/HARRIS POLL

150 A 'CLASSIC' BANK FAILURE
The fall of Florida's First American

152 COMMENTARY
Bank insurance: Part of the problem

Top of the News

26 THE UNKINDEST CUTS
Now everything is fair game in the budget—including entitlements

28 COMMENTARY
Budget cuts won't cripple growth

29 FACING THE UNTHINKABLE
Aid to Moscow looks almost certain

30 'GENERALLY, BUSINESS LOST'
The verdict on the high court's term

31 SMITH CORONA IS TAPPING OUT
PCs are preempting its products

31 1-2-3 VS. QUATTRO
Lotus hauls Borland into court

32 POLAROID AND MINOLTA
There may be developments ahead

33 RESEARCH—FOR MEN ONLY
Many clinical tests exclude women

36 THAT'S ALL, FOLKS?
Pathe's MGM deal: Still dead, for now

36 COMMENTARY
NASA should be run like a business

37 PUTTING THE BITE ON JOE COLLEGE
Evanston, Ill., might tax tuition

38 IN BUSINESS THIS WEEK

Economic Analysis

18 ECONOMIC VIEWPOINT
Blinder: Why a war mentality about Japan is self-defeating

22 ECONOMIC TRENDS
Hope for housing, the S&L bailout, school spending, Detroit and GNP

23 BUSINESS OUTLOOK
The Fed still calls the shots —but others are shaping the game

Government

39 WASHINGTON OUTLOOK
How Bush's flip on taxes could flop for the Democrats

International

40 THE NETHERLANDS
Philips suffers a megaloss—and a new round of job cuts may not be enough to stave off more bad news

41 GERMANY
A unified East and West Germany will be a huge importer

44 JAPAN
Companies are cashing in on a rising concern for the environment

47 INTERNATIONAL OUTLOOK
Castro becomes more of an island

NOTHING SACRED: FEDERAL ENTITLEMENTS AID EVERYONE FROM POPCORN FARMERS TO GOATHERDS. BUT WILL THEY SURVIVE THE NEW AUSTERITY?

66 'THIS ISN'T ROCKET SCIENCE': ALLEN QUESTROM SAYS RUNNING ALLIED AND FEDERATED IS BASIC STUFF. GETTING CREDITORS TO SWAP DEBT FOR EQUITY MAY NOT BE

111 CONTINENTAL FLAIR: BUSINESS WEEK'S GLOBAL 1000 SHOWS THE NIKKEI DIVING, THE U.S. HOLDING ITS OWN—AND EUROPE LEADING THE WAY IN NEW EQUITY

The Corporation

WEYERHAEUSER'S REAL WORRY
No, not the spotted owl, but another endangered species: Exported logs

HELPING MOTHER NATURE MEND
Weyerhaeuser at Mt. St. Helens

CYANAMID'S Rx
Now, it resembles a drug company

People

MOVERS & SHAKERS
Ford's alternative-fuel guru, baseball's first black woman executive, pushcart entrepreneurs

Legal Affairs

PUNITIVE DAMAGES ON TRIAL
A new Supreme Court case could finally slap them down

Marketing

THE UP ESCALATOR IS STUCK
CEO Allen Questrom scrambles to turn around Allied and Federated

Sports Business

RACING'S FOUR HORSEMEN
The oil-rich Maktoum brothers have rival Thoroughbred owners in a spin

Scoreboard

THE GLOBAL 1000
European companies made big gains in BUSINESS WEEK's annual roundup of the world's biggest businesses

114 **FRANCE'S MEDIA STAR**
Havas is a top huckster in the East

Finance

143 **GOLD FROM POTHOLES?**
Municipal-bond insurer MBIA's stock is up 34% in two months

144 **A NEW HAMPSHIRE WHODUNIT**
Who bought risky 'naked options' with PSNH's pension fund?

145 **INSIDE WALL STREET**
Is Viacom stalking a pinball wizard?
A savvy sleeper in semiconductors
This diet deal may be worth a splurge

177 **INVESTMENT FIGURES OF THE WEEK**

50 HEADED FOR A LOGJAM? WEYERHAEUSER'S TURNAROUND COULD BE THREATENED BY A PROPOSED BAN ON TIMBER EXPORTS FROM PRIVATE LAND

Information Processing

154 **CHARGING GROUPE BULL**
Chairman Lorentz is building a global giant—but he's not done yet

158 **APPLE: RIPER NEXT YEAR?**
1990 is disappointing, though with a new COO comes a new strategy

Science & Technology

160 **LASER CHEMISTRY TAKES OFF**
The beams are helping unravel the inner workings of cells

167 **DEVELOPMENTS TO WATCH**
Robotroops, mine alarms, CT scans, Taiwanese chips, color videophones

Personal Business

170 **TRAVEL:** Satellite airports
SMART MONEY: Brokerage stocks
SPORTS: Seattle's Goodwill Games
LEISURE: The farms of France

Features

6 **BUSINESS WEEK INDEX**

10 **READERS REPORT**

13 **BOOKS**
Phillips: *The Politics of Rich and Poor*
Green: *On Strike at Hormel*

175 **INDEX TO COMPANIES**

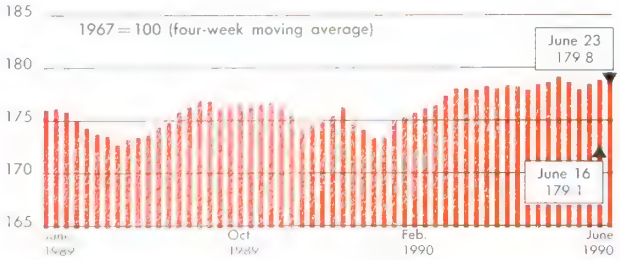
178 **EDITORIALS**
A rare chance to streamline banking
It's time to milk the sacred cows
The right kind of aid for the Soviets

ess Week (ISSN 0007-7135) published weekly, except for one issue in January, by McGraw-Hill Inc. U.S. subscriber rate $39.95 per year. In Canada, one year. CDN $54.95. Single s $2.00. Executive, Editorial, Circulation, and Advertising Offices 1221 Avenue of the Americas, New York, N.Y. 10020. Second-class postage paid at New York, N.Y., and at additional mailing s. Postage paid at Montreal, P.Q. Registration Number 9010. Title Reg. in U.S. Patent Office. **Postmaster:** Send address changes to BUSINESS WEEK, P.O. Box 430, Hightstown, N.J. 08520

BusinessWeek Index

PRODUCTION

Change from last week: 0.4%
Change from last year: 2.6%

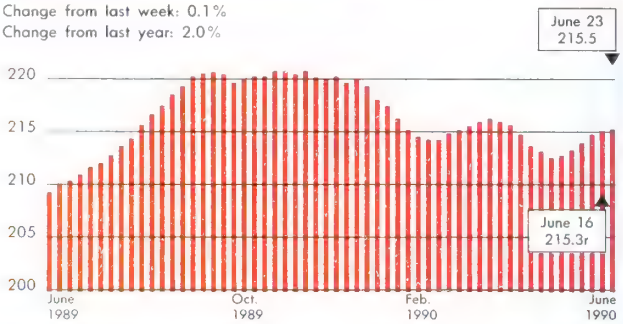


The production index rose in the week ended June 23. Production last month moved clearly above the May level, another sign that manufacturing's vital signs are looking better. After seasonal adjustment, weekly output of autos, steel, paper, and electric power rose. Those gains more than offset production declines in trucks, coal, paperboard, and lumber. Crude-oil refining and rail-freight traffic also fell. Before calculation of the four-week average, the index rose to 181.0 from 180.7.

BW production index copyright 1990 by McGraw-Hill Inc

LEADING

Change from last week: 0.1%
Change from last year: 2.0%



The leading index rose slightly in the week ended June 23. The gain continued a string of increases in recent weeks, but the index remains well below where it was at the beginning of the year. The pace of the M2 money supply picked up in the latest week, and business failures declined. On the downside, stock prices fell, bond yields rose, the pace of real estate loans slowed, and materials prices fell at a faster rate. Before calculation of the four-week average, the index dipped to 215.3 from 215.6.

Leading index copyright 1990 by Center for International Business Cycle Research

PRODUCTION INDICATORS

	Latest week	Week ago	% Change year ago
STEEL (6/30) thous. of net tons	1,858	1,893 #	0.8
AUTOS (6/30) units	143,912	149,895r #	20.1
TRUCKS (6/30) units	80,955	92,430r #	3.4
ELECTRIC POWER (6/30) millions of kilowatt-hours	62,538	62,244 #	6.5
CRUDE-OIL REFINING (6/30) thous. of bbl./day	13,973	13,458 #	–1.3
COAL (6/23) thous. of net tons	19,390 #	20,079	14.7
PAPERBOARD (6/23) thous. of tons	717.3 #	730.3r	–6.3
PAPER (6/23) thous. of tons	752.0 #	737.0r	2.9
LUMBER (6/23) millions of ft.	484.4 #	499.6	–7.4
RAIL FREIGHT (6/23) billions of ton-miles	20.3 #	20.4	9.1

Sources: American Iron & Steel Inst., *Ward's Automotive Reports*, Edison Electric Inst., American Petroleum Inst., Energy Dept., American Paper Inst., WWPA[1], SFPA[2], Association of American Railroads.

LEADING INDICATORS

	Latest week	Week ago	% Change year ago
STOCK PRICES (6/29) S&P 500	355.03	358.07	9.7
CORPORATE BOND YIELD, Aaa (6/29)	9.27%	9.26%	2.8
INDUSTRIAL MATERIALS PRICES (6/29)	103.1	102.7	–1.4
BUSINESS FAILURES (6/22)	285	339	12.2
REAL ESTATE LOANS (6/20) billions	$374.0	$373.7r	11.6
MONEY SUPPLY, M2 (6/18) billions	$3,278.6	$3,274.1r	6.3
INITIAL CLAIMS, UNEMPLOYMENT (6/16) thous.	359	356	7.8

Sources: Standard & Poor's, Moody's, *Journal of Commerce* (index: 1980 = 100), Dun & Bradstreet (failures of large companies), Federal Reserve Board, Labor Dept. CIBCR seasonally adjusts data on business failures and real estate loans.

FOREIGN EXCHANGE

	Latest week	Week ago	Year ago
JAPANESE YEN (7/3)	151	154	140
GERMAN MARK (7/3)	1.65	1.66	1.89
BRITISH POUND (7/3)	1.78	1.74	1.62
FRENCH FRANC (7/3)	5.54	5.58	6.40
CANADIAN DOLLAR (7/3)	1.16	1.17	1.19
SWISS FRANC (7/3)	1.39	1.41	1.62
MEXICAN PESO (7/3)[3]	2,859	2,859	2,487

Sources: Major New York banks. Currencies expressed in units per U. S. dollar, except for British pound expressed in dollars.

MONTHLY ECONOMIC INDICATORS

	Latest month	Month ago	% Change year ago
CONSTR. SPENDING (May) annual rate, billions	$445.6	$447.2	2.5
MANUFACTURERS' INVENTORIES (May) billions	$372.4	$372.3	2.0
MANUFACTURING SHIPMENTS (May) billions	$238.9	$234.3	2.5
NEW HOME SALES (May) annual rate, thous.	532	530	–18.3

Sources: Census Bureau, Commerce Dept.

PRICES

	Latest week	Week ago	% Change year ago
GOLD (7/3) $/troy oz.	362.000	350.650	–5.6
STEEL SCRAP (7/3) #1 heavy, $/ton	112.00	114.50	–2.2
FOODSTUFFS (7/2) index, 1967 = 100	228.2	226.6	0.4
COPPER (6/30) ¢/lb.	115.7	117.5	1.8
ALUMINUM (6/30) ¢/lb.	72.4	73.3	15.6
WHEAT (6/30) #2 hard, $/bu.	3.32	3.45	23.9
COTTON (6/30) strict low middling 1-1/16 in., ¢/lb.	80.03	77.17	21.7

Sources: London Wed. final setting, Chicago mkt., Commodity Research Bureau, *Metals Week*, Kansas City mkt., Memphis mkt.

MONEY MARKET RATES

	Latest week	Week ago	Year ago
FEDERAL FUNDS (7/3)	8.35%	8.33%	9.58%
PRIME (7/3)	10.00	10.00	11.00
COMMERCIAL PAPER 3-MONTH (7/3)	8.14	8.17	9.06
CERTIFICATES OF DEPOSIT 3-MONTH (7/3)	7.76	8.28	9.00
EURODOLLAR 3-MONTH (6/27)	8.25	8.23	9.31

Sources: Federal Reserve Board, First Boston

MONETARY INDICATORS

	Latest week	Week ago	% Change year ago
MONEY SUPPLY, M1 (6/18)	$807.6	$807.5r	5.2
BANKS' BUSINESS LOANS (6/20)	323.2	322.2r	1.7
FREE RESERVES (6/27)	689	–272r	12.2
NONFINANCIAL COMMERCIAL PAPER (6/20)	152.0	148.6	18.8

Sources: Federal Reserve Board (in billions, except for free reserves, which are expressed for a two-week period in millions).

# = Raw data in the production indicators are seasonally adjusted in computing the BW index (chart); other components (estimated and not listed) include machinery and defense equipment.
1 = Western Wood Products Assn. 2 = Southern Forest Products Assn. 3 = Free market value NA = Not available r = revised NM = Not meaningful

There are lots of ways to drink in the Summer.

ut there's only one Beefeater® and tonic.

is	Sunning	Loafing
ng	Swimming	Partying
ing	Surfing	Traveling
ng	Sailing	Sail boarding

No matter how you enjoy your summer days, at cocktail time enjoy the clean, crisp taste of Beefeater and tonic. It's the most refreshing way we know of to celebrate summer!

The world's most imported gin.

47% Alc./Vol. 100% Grain Neutral Spirits. Imported by Hiram Walker & Sons, Inc., Farmington Hills, MI © 1990.

Take your corporate rate on the road.

© 1990 AT&T

When your employees make business calls away from the office, your company may not be getting the savings it's entitled to. That's unless your employees use The *AT&T Calling Card* for Business.

Only AT&T ties calling card usage to every interstate volume discount plan we offer such as *AT&T PRO*℠ *WATS* and *MEGACOM*® *WATS*. So regardless of the size of your business, you always get the discounts you deserve. And your savings go where your employees go. From a phone booth in Muleshoe, Texas, to a hotel in the Big Apple.

But the advantages go beyond savings and easy access to the AT&T network. When you add our flexible ***EXECU-BILL***℠ *service*, you get a more efficient way of tracking and monitoring card expenses.

Billing is custom tailored to work the way your company works, whether you have one local office or many offices across the nation or around the world. You specify who receives statements and the level of detail each statement contains. We can even personalize your cards with your company's logo.

Your phone system just isn't complete without The *AT&T Calling Card* for Business and ***EXECU-BILL*** *service*. Find out how your company can get it free. Call your AT&T Account Executive or **1 800 222-0400, Ext. 2150.**

The *AT&T Calling Card* for Business.
Another AT&T advantage.

AT&T
The right choice.

EDITOR-IN-CHIEF: Stephen B. Shepard
MANAGING EDITOR: John A. Dierdorff
EDITOR: William Wolman
ASSISTANT MANAGING EDITORS: John Maughan, Mark Morrison, Anthony J. Pansi
ART DIRECTOR: Malcolm Frouman
SENIOR EDITORS: Bob Arnold, Nancy Cardwell, Robert J. Dowling, Stuart Jackson, Richard F. Janssen, Geoff Lewis, Sally Powell, Ciro Scotti, Lee Walczak (Washington), G. David Wallace, Seymour Zucker
EDITORIAL PAGE EDITOR: John E. Pluenneke
CHIEF OF CORRESPONDENTS: Keith G. Felcyn
INTERNATIONAL EDITION EDITOR: Frank J. Comes
SENIOR WRITERS: Anthony Bianco, John A. Byrne, Judith H. Dobrzynski, John Hoerr, Gene G. Marcial, Bruce Nussbaum, John Pearson, Otis Port, Chris Welles, Brenton Welling
ASSOCIATE EDITORS: Duane E. Anderson, Robert Barker, Elizabeth Ehrlich, Marc Frons, William J. Holstein, Jeffrey M. Laderman, William D. Marbach, Mark N. Vamos
DIRECTOR EDITORIAL SYSTEMS & OPERATIONS: Thomas J. Reed
SENIOR SYSTEMS MANAGER: Richard I. Ulman
PICTURE EDITOR: Lawrence Lippmann
ECONOMICS: James C. Cooper (Business Outlook editor), Kathleen Madigan (Assoc.) Karen Pennar (Economics editor), Christopher Farrell (Assoc.), Michael J. Mandel (Assoc.). Gene Koretz (Economic Trends editor). William Glasgall (International)
DEPARTMENT EDITORS: Books: Denise Demong. **Corporate Finance:** Larry Light, David Zigas (Assoc.) **Industries:** Thane Peterson. **Information Management:** Jeffrey Rothfeder. **Information Processing:** John W. Verity. **International Edition:** Elizabeth Weiner. **International News:** Peter Galuszka. **Investment Banking:** Jon Friedman. **Labor:** Aaron Bernstein. **Legal Affairs:** Michele B. Galen. **Marketing:** Christopher Power, Amy Dunkin (Assoc.) **Markets & Investments:** Gary Weiss. **Media:** Susan Duffy. **Money & Banking:** John Meehan. **News:** Harris Collingwood. **People:** Peter Finch. **Personal Business:** Donald H. Dunn. **Science:** Emily T. Smith. **Scoreboards:** Robert Mims. **Telecommunications:** Peter Coy. **Transportation:** Michael Oneal
STAFF EDITORS: Brian Bremner, Deidre A. Depke, Naomi Freundlich, Bruce Hager, Fred F. Jespersen, Mark Landler, Leah J. Nathans, Stanley Reed, Monica Roman, Andrea Rothman, Troy Segal, Suzanne Woolley
ASSISTANT EDITOR: Laura Zinn
COPY EDITORS: Harry Maurer (Deputy chief), Michael Mercuno, Joan Warner (Asst. chiefs), Marc Miller, Jack Robbins, Jim Taibi (Sr. Copy Editors), Tim Belknap, Pam Black, Prudence Crowther, Carl Desens, Hardy Green, Aleta Kaufman, Cynthia McClean, David Pengilly, Malka Percal, Barbara Tierney, Dalia Kandiyoti, Kim Jacobs, Aida Rosario, Rebecca Stead (Researchers)
PRODUCTION COPY EDITORS: Donald Halsband (Chief), Hallberg Hallmundsson, Robert S. Norman, Celine Keating, Karen Leiner, Stephan M. Romanoff
ART: Laura Baer, Steven Taylor (Deputy directors), Jen Hansen, Eric Rosenberg (Assoc. directors), Pamela Harris, Craig Socia (Asst. directors) **Graphics:** Arthur Eves (Director), Joan Danaher (Deputy director), Rob Doyle (Sr. Illustrator), Laurel Daunis, Ray Vella (Illustrators) **Production:** Mary Lee Schneider (Mgr.), Stephen J. Romeo (Asst. mgr.)
PHOTOS: Sue Bloom (Deputy Picture editor), Scott Miyn (Assoc. Picture editor), Todd James, Anne Murray, Ronnie Weil (Asst. editors) Kathleen Daly (Researcher) Bettina Baudoin (Researcher - Paris) Joan Clark (Traffic), Lawrence Crowe (Librarian)
EDITORIAL OPERATIONS: Albert E. Baker, Richard Balestrino, A. Peter Clem, Yvonne Rodriguez, Claire Worley (Production managers) Thomas R. Dowd, Sharon L. Eng, Fidel Lee, José L. Martin, Jane M. Perkinson, Craig Sturgis, Karen Turok, Ilse V. Walton, Nicholas White (Makeup editors), Felix Lindicy (Makeup asst.) Donald C. Pearson (Traffic manager), Dale I. Arnold, Edgardo Torres (Production assts.)
CORRESPONDENTS: Jerome Zukosky (Deputy chief) **Atlanta:** Chuck Hawkins (Mgr.), Walecia Konrad **Boston:** Keith H. Hammonds (Mgr.), Gary McWilliams **Chicago:** James E. Ellis (Mgr.), David Greising, Kevin Kelly, Julia Flynn Siler, Lois Therrien **Cleveland:** Zachary Schiller (Mgr.), Maria Mallory, Stephen Phillips **Connecticut:** Todd Vogel (Mgr.), Lisa Driscoll **Dallas:** Wendy Zellner (Mgr.), Jim Bartimo **Denver:** Sandra D. Atchison (Mgr.), William C. Symonds (Sr. Correspondent) **Detroit:** James B. Treece (Mgr.), David Woodruff **Houston:** Mark Ivey (Mgr.) **Los Angeles:** Ronald Grover (Mgr.), Larry Armstrong (Sr. Correspondent), Kathleen Kerwin, Eric Schine **Miami:** Gail DeGeorge (Mgr.), Antonio N. Fins **Minneapolis-St. Paul:** Russell Mitchell (Mgr.) **Philadelphia:** Joseph Weber (Mgr.) **Pittsburgh:** Gregory L. Miles (Mgr.), Michael Schroeder **San Francisco:** Joan O'C. Hamilton (Mgr.), Richard Brandt, Barbara Buell, Robert Hof, Maria Shao **Seattle:** Don Jones Yang (Mgr.) **Washington:** Stephen H. Wildstrom (Sr. News Editor), Stan Crock (News Editor), Amy Borrus, Vicky Cahan, John Carey, Paula Dwyer, Dean Foust, Susan Garland, Howard Gleckman, Dave Griffiths, Douglas A. Harbrecht, Bill Javetski, Mark Lewyn, Paul Magnusson, Mike McNamee, Seth Payne, Tim Smart, Catherine Yang **Bonn:** John Templeman (Mgr.), Gail Schares **Brussels:** Jonathan Kapstein (Mgr.) **Hong Kong:** Dinah Lee (Mgr.), Pete Engardio **London:** Richard A. Melcher (Mgr.), Mark Maremont **Mexico City:** Stephen Baker (Mgr.) **Moscow:** Rose Brady (Mgr.) **Paris:** Stewart Toy (Mgr.), Jonathan B. Levine, Blanca Riemer **Rome:** John Rossant (Mgr.) **Sao Paulo:** Jeffrey Ryser (Mgr.) **Tokyo:** Robert Neff (Mgr.), Neil Gross, Ted Holden
EDITORIAL SERVICES: Broadcasting: Ray Hoffman **Business Manager:** Barbara Boynton **Information Services:** Jude Hayes (Director), Judi Crowe (Asst. editor), Dana Gordon, Fred Katzenberg, Jessie Khatami, Rex Long **Public Relations:** Christine Summerson, Josephine Coppola **Reprint Permission:** Vivian J. K. Betton **Systems:** Ron Brayer, Courtenay Eddy

PUBLISHER: John W. Patten
SR. VP, DIRECTOR OF MARKETING: John J. Bedell
SR. VP, OPERATIONS: Gary B. Hopkins
VPs, INTERNATIONAL: Gerd Hinske, Earl S. Moore, Jr.
VP, PLANNING & DEVELOPMENT: Barbara Munder
VP, CIRCULATION: Kitty Carroll Williams
VPs, SALES: Constance E. Bennett (San Francisco), John R. Campbell (Stamford), Charles W. Hennessy (Philadelphia), Irwin Kornfeld (New York), Thomas O. McDonough (Chicago)
DIRECTOR, ADVERTISING BUSINESS: Linda F. Carvalho
DIRECTOR, PRODUCTION: Marie J. Talluto

Readers Report

WHICH DRUGS ARE REALLY ORPHANS?

Your editorial entitled "Not all 'orphan' drugs deserve shelter" (June 18) overlooks the devastating effect that pending legislation will have. The Orphan Drug Act has been a spectacular success story. Because of it, more than 300 pharmaceutical products have been designated as orphan drugs, and manufacturers have spent or budgeted $180 million on the development of such drugs.

The pending bill destroys the incentives for the future development of orphan drugs by gutting the seven years of market exclusivity or patent-like protection—the most important incentive afforded by the law. Your editorial suggests that the bill would simply allow simultaneously developed products to share market exclusivity. In fact, the bill will allow any imitator to monitor an innovator's progress, wait for the innovator to show that the product is safe and effective, and then—even though the imitator is as much as three years behind—be deemed to be "simultaneously developing" the drug.

The pending legislation threatens one of the most successful public health initiatives in the past decade. It would jeopardize the primary incentives to develop drugs to help tens of thousands with orphan diseases, only to reward a handful of imitators.

G. Kirk Raab
CEO
Genentech Inc.
San Francisco

The Association of Biotechnology Companies, an organization of over 250 members representing every key segment of the biotechnology industry, commends BUSINESS WEEK for supporting the Orphan Drug Amendments of 1990.

Although the Orphan Drug Act has been a great success in spurring the development of treatments for rare diseases, certain companies have used the act to gain exclusive rights to market extremely profitable and clearly non-orphan drugs. In addition to barring many smaller innovative companies from competing in profitable markets, these abuses have forced the victims of certain rare diseases, and the federal government, to play "Daddy Warbucks" to these "orphans."

The Orphan Drug Amendments would carefully fine-tune the act to end these abuses while maintaining the crucial incentives for the development of treatments that would not normally be commercially attractive. The result would promote responsible and entrepreneurial growth in the biotechnology industry, and lower prices for consumers who depend upon certain drug products.

Pamela Bridgen
Executive Director
Association of Biotechnology Companies
Washington

CALLER I.D.: TROUBLE ON THE LINE

The threat to personal privacy posed by caller identification telephone service is considerably more profound than you reported ("Why all the heavy breathing over Caller I. D.?," Top of the News, June 18). In the works is a machinery of personal dossier-building, the products of which will rival the work of the CIA and KGB at their most prolific. Already the trade in personal-data collected via 800 and 900 numbers is frightening. Local Caller I. D. will make this practice universal.

Perhaps it is appropriate, in capitalist America, that private companies, rather than the government, should assign us our personal identity numbers. Were government to attempt this ploy, it would immediately be labeled Big Brotherism and abolished in a moment. When business does it, it's called efficiency.

Thus does personal privacy (and freedom) in America end not with a bang, but with a dial tone.

Robert Jacobson
Seattle

The most pressing need for Caller I. D. is to quickly pinpoint abusive telephone practices in order to stop them. However, this does not require that the called person know the caller's telephone number. All that is required is

BUSINESS WEEK
JULY 16, 1990 ***3169
ISSN 0007-7135

Published weekly, except for one issue in January, by McGraw-Hill Inc. Founder James H. McGraw (1860-1948)
Executive, Editorial, Circulation and Advertising Offices: McGraw-Hill Building, 1221 Avenue of the Americas, New York, N.Y. 10020. Telephone (212) 512-2000. Telex: [illegible] International Tel. [illegible] McGraw Hill New York. TWX [illegible]
U.S. subscription rates: [illegible] per year. [illegible] year. [illegible] year. Single copies, $2. Write for rates in other countries.
For [illegible] Service: [illegible]

European Circulation Center, McGraw-Hill House, Maidenhead, Berks, England. Telephone (0628) 23431, Telex 848640
Postmaster: Please send address changes to BUSINESS WEEK, P.O. Box 430, Hightstown, N.J. 08520. Second-class postage paid at New York, N.Y., and at additional mailing offices. Postage paid at Montreal, P.Q. Registration Number [illegible]
Copyright © 1990 by McGraw-Hill, Inc. All rights reserved. Title registered in U.S. Patent Office

Officers of McGraw-Hill, Inc.: Joseph L. Dionne, Chairman, President and Chief Executive Officer, Robert N. Landes, Executive Vice President, General Counsel, and Secretary, Harold W. McGraw, III, Executive Vice President, Frank D. Penglase, Senior Vice President, Treasury Operations.

PHOTOCOPY PERMISSION: Where necessary, permission is granted by the copyright owner for those registered with the Copyright Clearance Center (CCC), 27 Congress St., Salem, Mass. 01970, to photocopy any article herein for the flat fee of $1.50 per copy of each article. Send payment to the CCC. Copying for other than personal or internal reference use without express permission of McGraw-Hill is prohibited. Address requests for customized bulk reprints to Business Week Reprints, P.O. Box 457, Hightstown, N.J. 08520, or call 609 426-5494. ISSN 0007-7135/90/$2.00

the called person be able to instan-
ously notify the telephone company
an abusive call is in progress so the
rmation can be recorded. The called
on would simply press a button. As
911 services, penalties can be as-
ed for frivolous use of the service.
information can be held in confi-
e until the proper authorities are
sfied that an abuse has taken place;
aps the phone company could only
ase it upon receipt of a warrant.
such a service were available, the
roversy over Caller I. D. would van-
because those wishing to block could
o without impairing the ability of the
d person to trap offenders.

Will Fastie
Baltimore

ou state that an answering machine
is cheaper than using Caller I. D. It
nds. Why pay to call back in re-
se to a recorded message if one is
ng to talk, at the caller's expense,
the person whose number is dis-
ed on Caller I. D.?

John F. Elsbree
Brighton, Mass.

ot one article about the introduction
of Caller I. D. has mentioned the
real problem it will cause business
ers who must contact customers
t overdue bills.
very month we are forced to call
t 10% of our accounts to remind
n to pay up. How many of those
le will even answer the phone if
know who's on the line?
he answer may come from the phone
pany. Wait until they see what Call-
D. is doing to their own collections
rtment.

Christopher G. Scheck
President
Small World Paging Co.
New York

E CREDIT CRUNCH REAL—AND GETTING WORSE

onald Trump is not alone. As indi-
cated in your article "The credit
eeze that has little guys saying
h,'" (Economics, June 11), ready
is a major problem for small busi-
ses across the country. In our recent
onal survey of 350 small business
nts of leading local accounting firms,
even cash flow" was the No. 1 finan-
obstacle they named.
et the credit crunch you report ap-
rs to be disputable, or at least short-
n. Of the CEOs and CFOs we sur-
ed—from companies with median
ual sales of $5 million—57% said
r bankers were "very willing and
to support the company's business
ls," and another 28% said the bank-
ers were "moderately" willing and able.

Small businesses have long been able to weather changes in credit conditions based on fundamentally sound relationships with the banking community—and an entrepreneurial ability to cut back when times get tough.

Trump may be able to learn from their experience.

Robert L. Israeloff
Chairman
Private Companies Practice Section
American Institute of CPAs
Valley Stream, N. Y.

The credit crunch, which both the banks and the Fed wish to gloss over, is very real and getting worse with each turn of the regulatory screw. It bodes ill for our economy and balance of trade. The most dynamic business sector in the U. S. is being denied its life-blood under the cloak of "prudent" lending when in fact it is a knee-jerk reaction to the LBO and property bust.

The number-crunching approach to lending decisions was already well-established before the present trauma. The pressure valves were opened for asset-based loans, but the friendly banker has long since given way to the balance-sheet-driven credit analyst who has little time or training to look at the specific use to which money will be put, or the quality of the business his customer wishes to transact. In this world, the auditor is the decision-maker.

There is another way. One that provides credit for growth, looks backward only to evaluate performance capability and to the future in terms of the order book. In this way, good business could be done if credit were available. Such an approach is the specialty of a few "non-bank banks" who cannot possibly meet the need. It is time, perhaps, that this approach gained ground in the banking mainstream.

Anthony K. Brown
Managing Director
Trading Alliance Corp.
New York

HOW FAR IS IT TO PUNTA ARENAS? PRETTY FAR

Your article "South America: Don't let the headlines scare you away" (Personal Business, June 25) states that Punta Arenas on the Strait of Magellan is 17 miles south of Santiago. In fact, it is about 1,700 miles from Santiago.

A. Miller
New York

Letters to the Editor should be sent to Readers Report, Business Week, 1221 Avenue of the Americas, New York, N. Y. 10020. Fax: (212) 512-4464, Telex: 12-7960, Intl. 4998204. All letters must include an address and daytime and evening telephone numbers. We reserve the right to edit letters for clarity and space.

This Is Not A Pen.

But It Is Retractable.

CLICK

Introducing our newest gem: CHICAGO
Hotel 21 East is now Le Meridien Chicago

Perfection results from a true eye for detail. Ours is a sight you'll not want to miss.

These days it is rare that a hotel has the insight to see to the finer points of your holiday. But at ten of North America's most fashionable destinations that talent is alive and well. Whether your fancy takes you to a thriving cultural center or the ultimate vacation paradise, you'll find a Meridien hotel that is a sight to behold.

For reservations call **(800) 543-4300** or your travel planner, and don't forget to ask about *L'invitation*, our frequent-guest program.

Le MERIDIEN

Over 50 Hotels and Resorts Worldwide

In North America: Boston • Chicago
Montreal • Nassau, Bahamas
New Orleans • New York • Newport Beach
San Diego • San Francisco • Vancouver

POLITICS OF RICH AND POOR: WEALTH AND THE AMERICAN
TORATE IN THE REAGAN AFTERMATH
Phillips
om House • 262pp • $19.95

CLOTH-COAT CONSERVATIVE ONDERS GOP POLICIES PAST

ppraisals of the roaring Eighties are already in full swing. The cold war ended, the U. S. became btor nation, and two highly visible es—billionaires and the homeless— rged at the poles of American soci- It was a time of transition for the d, nation, economy, and family. It a compelling period that deserves t analysis and review.

The Politics of Rich and Poor: lth and the American Electorate he Reagan Aftermath, political ana- Kevin Phillips neatly outlines the ges in relation to Republican Party es and politics. Phillips shows how decades of GOP policy revitalized rican capitalism—but also fostered easing social inequality and a great- oncentration of wealth at the top. result, he believes, will be social and ical upheaval in the 1990s.

illips makes use of a diverse set of me and wealth statistics that, taken emeal, have been used to justify ly every ideology, including Reagan- s. It is true, for instance, that in- e taxes fell, employment rose, and e American families became rich. the top 20% of U. S. households also eased their share of the nation's in- e from 41.6% to 44% in the 1980s. s Phillips points out, that wealth was redistributed upward from the middle class and the poor. In the face of declining real wages, more and more family incomes were supplied by two earners. For many, living standards slipped. Phillips implies that Reagan's notion of the American dream—that anybody can get rich—was ultimately at odds with another version of the dream: America as a confident, striving, middle-class society.

Phillips charges that this same regime paid for laissez-faire excess by blithely and uncomprehendingly mortgaging America's future to the Japanese. Using the proceeds to finance consumption instead of productive investment, he argues, has relegated many U. S. workers to low-paid service jobs. Finally, Phillips draws a scenario in which the broad middle class, goaded by economic nationalism, resentment of the rich, and fear of losing more economic ground, will take its self-interest to the voting booth.

This analysis should unnerve Republican politicians and the moneyed set. It also shows up the Democratic leadership's failure to galvanize middle-class disaffection by emphasizing that party's historic themes: egalitarianism and populism. In the 1988 Presidential campaign, Phillips says, TV ads touting Reagan-era prosperity were rarely played to the hard-hit Midwest. Republican strategists

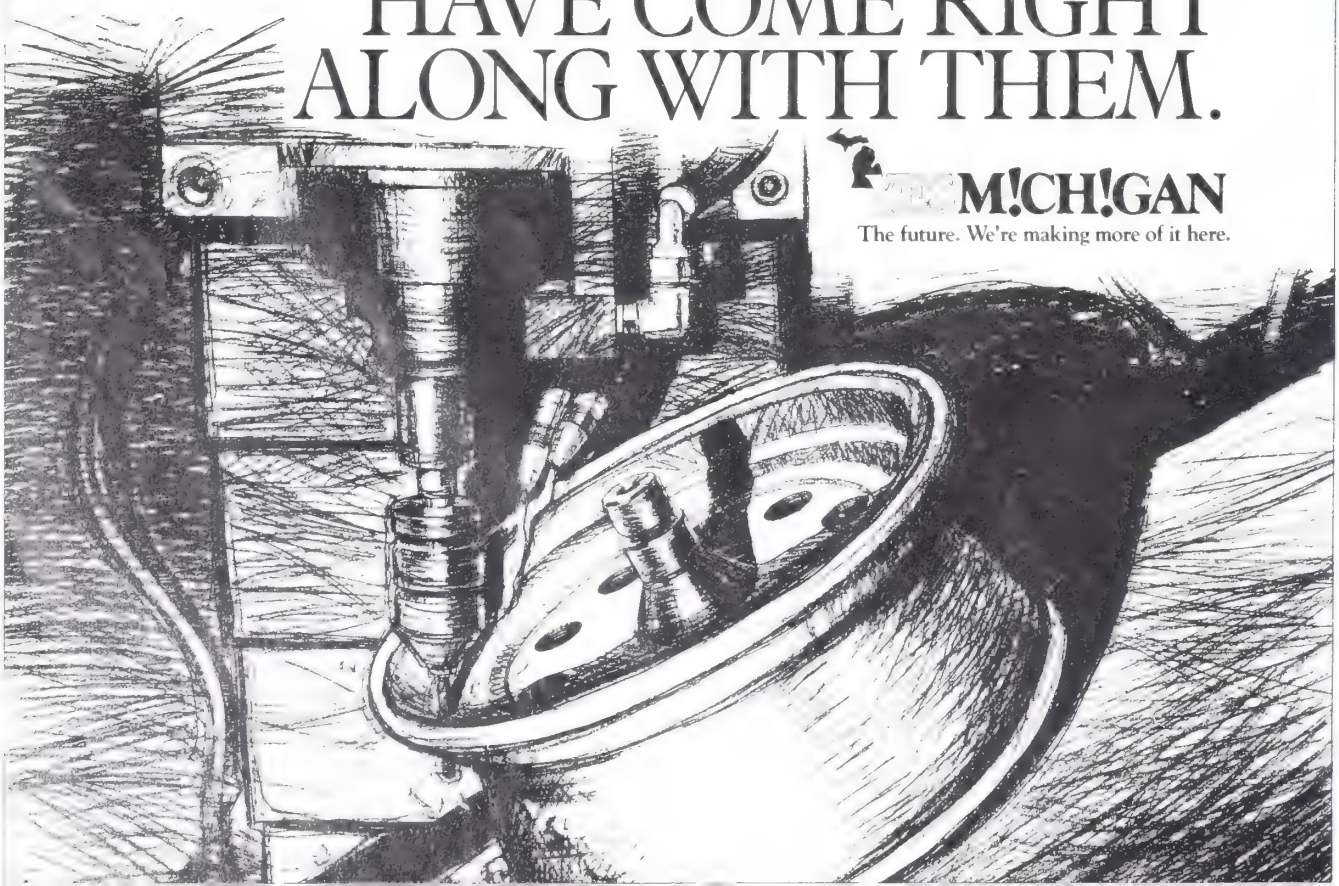
THIS IS NOT A MARKER.

But It Applies Vivid Color.

MICHIGAN'S MACHINES SURE HAVE COME A LONG WAY.

When you think of Michigan, one of the first things you think of is automobiles. But what about the machines behind the machines? Well, Michigan's machine tool industry is just as technologically advanced as our car industry, thank you ■ William Bournias, President, Machining and Assembly Systems, Litton Industrial Automation in Warren said, "The 'Mecca' of the machine tool industry is based in Michigan" It's only natural This is where the big industries are: plastics, appliances and food processing, as well as automotive. But perhaps the most important fact is that Michigan has a skilled work force John Hobey, President, Olofsson Corporation in Lansing said, "We depend on our people to make decisions in the production process. Most have the equivalent knowledge of high-level university engineering graduates." ■ With that, plus a lot more going for us, the machine tool industry in Michigan can only get better. So for more information, call (517) 373-8495 or write Larry Meyer, Director, Michigan Department of Commerce, 525 Ottawa, Lansing, MI 48909

OUR MACHINE TOOLS HAVE COME RIGHT ALONG WITH THEM.



M!CH!GAN

The future. We're making more of it here.

ried that Dukakis would attack the champion the have-nots, and play Bush's patrician background—tactics thought might win.

hillips' impersonal treatment rules what might have made an intriguing device: how this author came to pro- this book. A noted conservative, lips was chief political analyst for ard Nixon's 1968 Presidential cam- n. In 1969, he penned *The Emerging ublican Majority,* which predicted a period of support for the GOP. He blames Republican policy for pro- ing extremes of wealth and poverty, picuous consumption, financial spec- ion, thunder-cloud deficits, and erod- middle-class lifestyles. But Phillips gests that Republicanism, not he, changed.

deed, he distinguishes three phases he GOP's 20-year triumph. The first e, Phillips argues, was a "middle- s, anti-elite correction, successfully elching social permissiveness and dis- r" while opposing liberal social plan- and Eastern "effete snobs." This a movement of national unity, he , drawing in union members as well ne George Wallace coalition. To send nessage to Washington, middle-class rs flocked to one of their own, Rich- Nixon, whose wife, memorably, had ewed fur for a simple cloth coat.

Presumably Phillips, too, is a cloth-coat conservative. He is critical of the upper-bracket tax cuts and deregulation that, during the Reagan Administration—the second GOP phase—unleashed economic recovery and created brash new elites in the service and financial sectors. Phillips questions, in fact, whether this creative period for capitalism should even be termed "conservative." He's also hard on the culture that resulted, as business became fashionable, and corporate rearrangers, entrepreneurs, and well-compensated CEOs became media dolls. The rise of George Bush, in his analysis, represents a third GOP stage, the triumph of old money.

Phillips draws parallels with stages in earlier GOP eras, citing Lincoln as a middle-class "unity" figure and the Coolidge years as a time of "capitalist overdrive," for example. This analysis is both entertaining and limited, as cyclical views of history tend to be. But the point is sharp: The Republican Party is losing its middle-class base, says Phillips, and political change is in the wind. He doesn't guess at the precise shape of the upheaval to come. Of course, on top of smart and readable, clairvoyant is a lot to ask.

BY ELIZABETH EHRLICH

Ehrlich is BUSINESS WEEK's Social Issues Editor.

USINESS WEEK WRITERS

TRIKE AT HORMEL: THE STRUGGLE A DEMOCRATIC LABOR MOVEMENT

ardy Green

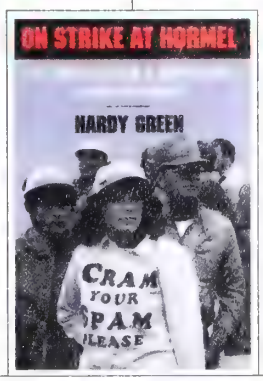
ole • 368pp • $29.95

E NO-WIN WALKOUT

n late 1984, 1,500 meatpackers went on strike at Geo. A. Hormel & Co.'s main plant in Austin, Minn. Although walkout didn't involve many people, parked intense national interest. The kers' militancy dramatically illustrat- ust how fed up employees were with Reagan-era wage concessions that permeated the economy after the ssion of the early 1980s.

he Hormel strike generated attention another reason as well: er top officers of the ted Food & Commercial rkers (UFCW) decided that walkout was a bad tacti- move, the Hormel rank file wound up fighting own leaders.

he internecine warfare sened when the Hormel l hired a well-known on consultant, Ray Rog- to help it battle manage- t. Rogers had pioneered the use of unorthodox labor tactics, such as pressuring a company's lenders to gain leverage with employers. In the process, he had alienated more traditional union leaders, including UFCW President William H. Wynn. In *On Strike at Hormel: The Struggle for a Democratic Labor Movement,* BUSINESS WEEK Copy Editor Hardy Green, who worked for Rogers during the strike, recounts what happened from a participant's standpoint.



As Green shows, the Hormel strike turned out badly for everyone. The company besmirched its formerly paternalistic reputation by its tough stance, which involved permanently replacing strikers with lower-paid workers. Bill Wynn came off just as poorly: He became obsessed with beating down what he viewed as a political challenge to his authority. He bears much of the responsibility for breaking the strike mounted by his own members. But Green makes it clear that those who really suffered were the workers. Most lost their jobs, and in the small town of Austin, few could find new ones good enough to let them rebuild their lives.

WE ADD PRESSURE TO THE TOUR DE FRANCE.

It's the world's toughest bicycle race: 2,500 miles in one month, over mountain roads and city streets, in good and bad weather. You would think that's more than enough pressure for man and machine alike.

Yet Akzo has added pressure. We invented an aramid fiber, Twaron®, that's five times stronger than steel.

Bike tires reinforced with Twaron® can take 50% more air.

Resulting in reduced rolling resistance. And more speed for the same amount of effort. Best of all perhaps, Twaron® tires are four times less likely to go fla

Because Twaron® is bi strong and supple it ha wide range of application Space capsules, airplane up stery, bulletproof garment

adiator hoses – the
s longer every day.
on® is just one of the
an 20,000 patents
y Akzo. With 70,000
50 countries, we are
one of the world's largest companies active in the fields of chemicals, fibers, coatings, salt and health care.

For further information write to Akzo America Inc., Corp. Comm. Dept., 111 West 40th Street, New York, N.Y. 10018.

CREATING THE RIGHT CHEMISTRY.

AKZO

WHY A WAR MENTALITY ABOUT JAPAN IS SELF-DEFEATING

BY ALAN S. BLINDER

Americans seem worried that Japan is gaining more from our bilateral trade than we are. That may well be so. But it does not mean that we are losing

I've been thinking about the remarkable Japanese economy of late. Who hasn't? You can hardly pick up a newspaper or magazine these days without encountering something about U. S.-Japanese economic relations. Many writers portray Japan as an adversary with whom we are locked in some kind of economic combat. Some go so far as to compare the emerging Japanese threat with the fading Soviet threat, as if Manhattan were in danger of being colonized like Manchukuo.

The Japanese are no angels, but such semihysterical analogies badly misstate the nature of international economic relations. Trade is not about warfare but about mutual gains from voluntary exchange. One of the most obvious—and most forgotten—ideas in all of economics is that two rational individuals enter into a voluntary transaction only if both expect to benefit. The same is true of nations. Americans seem worried that Japan is gaining more from our bilateral trade than we are. That may well be so. But it does not mean that we are losing.

The importance of trade between Japan and the U. S. is underscored by the first principle of trade theory: *Vive la difference.*

The more different two countries are, the more they stand to gain by trading with each other. Why would one country ever want to trade with another, if the other was a mirror image of itself?

WIN-WIN. Because the U. S. and Japanese economies are so different, the potential gains from trade are huge. We have the arable land to grow cheaply many crops that are difficult to raise in crowded Japan. They have the literate, industrious manufacturing workers that we seem to have a hard time developing.

They have the chipmakers; we have the software writers. We have the borrowers; they have the lenders (more on that shortly). And so on. Every difference creates an opportunity for mutually advantageous trade.

I can hear the objections now:

■ "The Japanese do not play fairly. They make their markets impenetrable, while we open ours to their products."

This charge is exaggerated but basically true. The U. S. does not exactly have clean hands, but there is little doubt that Japan is far more protectionist than we. Some American industries could benefit greatly from freer access to the Japanese market, and we should push hard for that outcome at every opportunity. But let us remember one thing: When the Japanese rig the game to favor exports and discourage imports, they are hurting their consumers and helping ours.

■ "But Japan's huge and persistent export surplus with the U. S. is stealing American jobs and forcing us to 'deindustrialize.' "

Hogwash. Our bilateral trade deficit with Japan is about 1% of our gross national product. Are we to believe that, if trade with Japan were balanced, employment here would be 1% higher? More than a million new jobs? Even though the U. S. is now enjoying its lowest unemployment rates in 20 years? Nonsense. Since the U. S. is now experiencing full employment, there would not be more American jobs if our trade were balanced—there would just be different jobs.

Which brings us to the deindustrialization thesis. How many Americans know that, as in the U. S., there has been virtually no growth in Japanese manufacturing employment in the past 15 years? Or that the shift of the labor force into the service sector has been faster in Japan than in the U. S.? Should we construe these facts to show that Japan is deindustrializing faster than the U. S.? No. They show that both countries are progressing normally.

■ "But they are using their trade surpluses to buy up America. We have to stop that."

Although Japanese ownership of American assets is much smaller than is popularly believed, this argument nonetheless has an element of truth. But it is a criticism of us, not them. In the 1980s, we as a nation began to spend more than we were earning, and we were forced to borrow the balance from abroad. Thus we—not they—put America up for sale. If the Japanese had not come to buy, someone else would have, and we would have received lower prices for our assets and paid higher interest on our loans. So it is hard to see how Japanese investment in the U. S. has harmed us.

TAKE A LESSON. Now back to those important differences. When two countries differ as much as the U. S. and Japan, they can gain not only from trading goods but also from trading ideas. For more than a century following the Meiji restoration in 1868, the Japanese eagerly picked up all sorts of pointers from us. Now, they may be in a position to return the favor.

Yes, we should be eyeing Japan—but not with envy, animosity, or fear. We should be looking with curiosity. We should be evaluating their peculiar brand of capitalism and trying to figure out what they are doing that we admire. We should be deciding which ideas—about factory management and labor relations, for example—we can profitably import to the U. S., and which ideas we can not. ▣

ALAN S. BLINDER IS THE GORDON S. RENTSCHLER MEMORIAL PROFESSOR OF ECONOMICS AT PRINCETON AND AUTHOR OF *HARD HEADS, SOFT HEARTS*

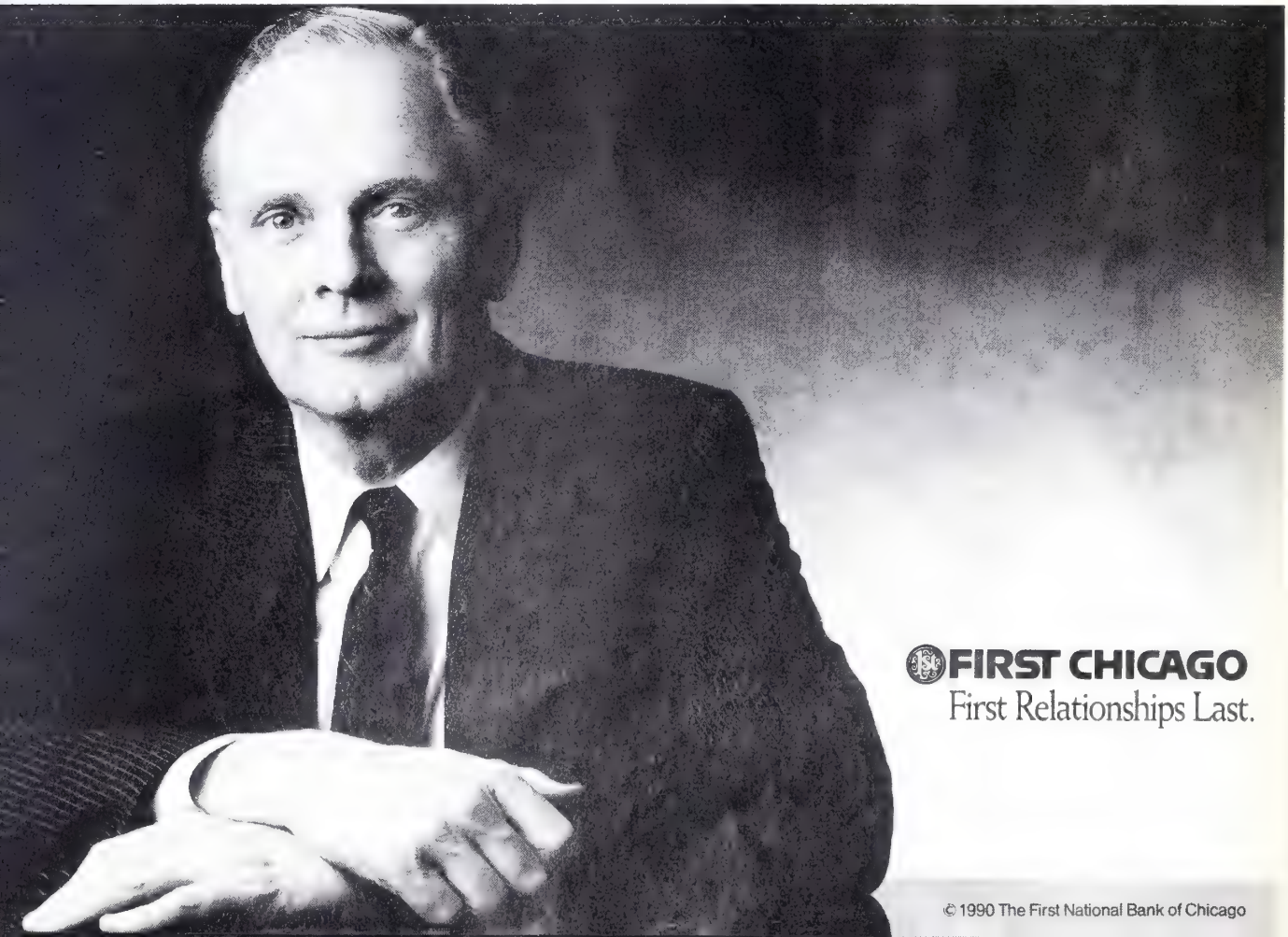
First Relationships Last. We've always believed in relationships. And still do. It's a philosophy which few banks adhere to these days, simply because they favor short-term profits over long-term growth.

We see things differently. In fact, we're such fervent believers in the concept of "relationship banking" that we've organized ourselves like a partnership for the purpose of helping clients succeed.

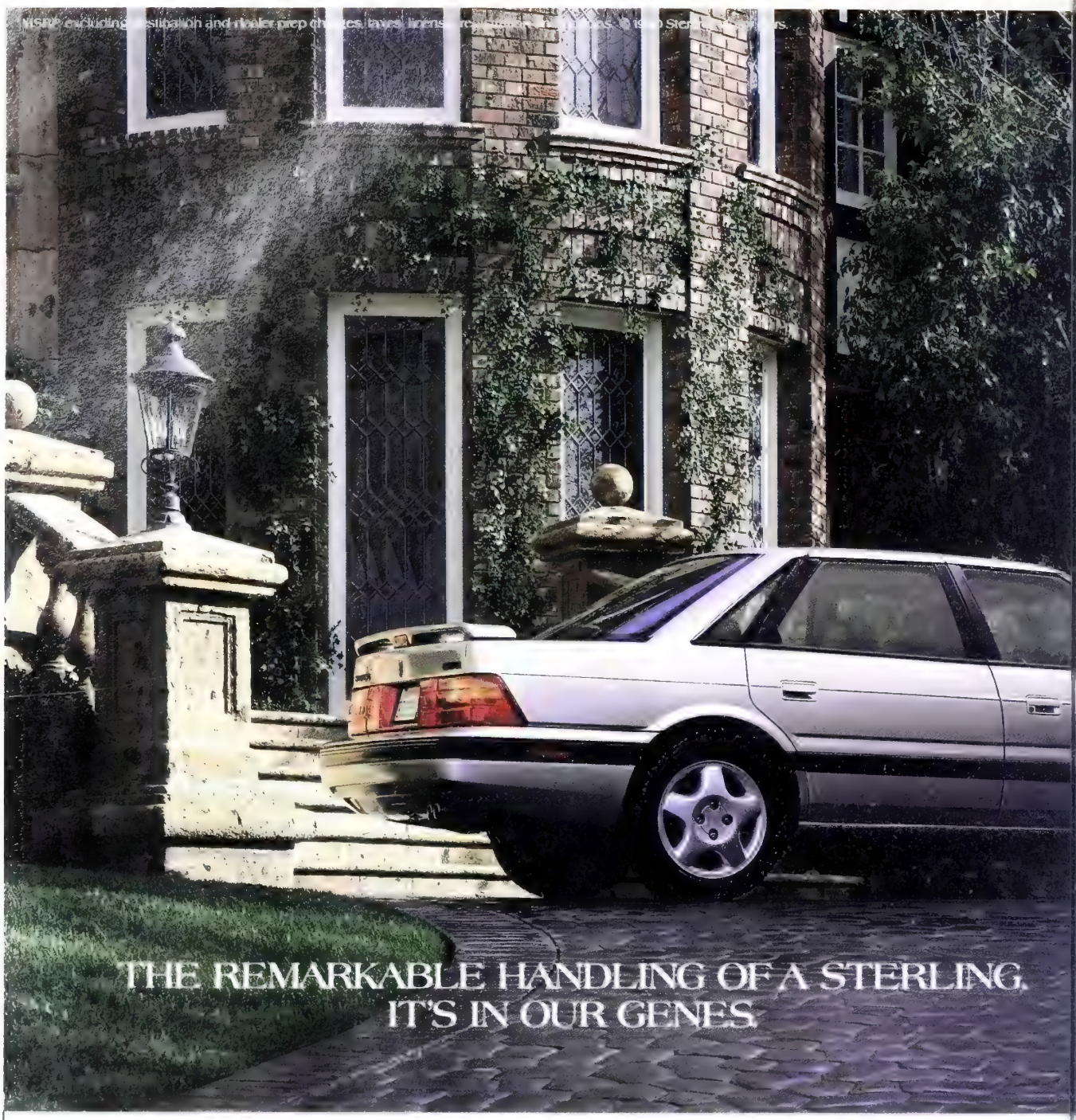
True, our relationship philosophy requires a sizable upfront and ongoing investment in time and effort to understand your business. But that in-depth knowledge—along with a wealth of financial solutions—gives your First Chicago Relationship Manager a decisive edge. So you get fresher ideas, faster response times, and more creative, better crafted deals.

On the strength of this expertise and these resources, I believe that First Chicago now leads the nation in its commitment to long-term client relationships. I'm signing this on behalf of all my colleagues who are proving every day that "First Relationships Last."

Barry F. Sullivan, Chairman, First Chicago Corporation



© 1990 The First National Bank of Chicago



STERLING

MADE IN ENGLAND BY ROVER CARS

In 1963, the revolutionary 65,000 rpm gas-turbine Rover – BRM convinced Le Mans 24-hour race organizers to rethink their regulations. Returning in 1965, with its distinctive jet-like sound, its Formula I derived suspension helped it rewrite the record books again.

ting a Sterling 827Si sedan
test of winding country
s prompts rave comments
t its performance from even
nost critical enthusiast.
course. It's British. Nobody
rstands suspension quite
ve do.
t ask drivers of champion-
race cars. Worldwide,
y all have long relied on
h suspension expertise.
vond the joy of quite unflap-
e cornering, the Si also rewards you with a lively front-wheel drive 160HP V6, low-profile Michelin tires on 16″ Roversport alloy wheels, and advanced anti-lock brakes.

But what about comfort? Unlike its spartan racing cousins, the Si is as much a pleasure to be in as it is to drive. Its spacious interior is fitted with Connolly leather, rare rosewood, automatic temperature control of the heating and air-conditioning, and brilliant cassette stereo sound.

All in all, for a remarkably reasonable $26,500,* you get all the handling, comfort and style of many a more expensive marque.

Time to get cracking on that vigorous Sterling test drive. Simply call 1-800-622-0550 for your nearest dealer.

BY MICHAEL J. MANDEL

WILL A BABY BOOMER BUYING BINGE FUEL HOUSING IN THE '90s?

It is widely believed that changing demographics will put a big dent in housing demand and sharply erode the value of homeowners' most precious asset. Now that the surge of baby boomers has entered middle age, the number of households is increasing at a much slower rate than it did in the 1980s. Sales of homes already are sagging in most parts of the country, so the worry is that there won't be enough new home buyers to keep prices from collapsing.

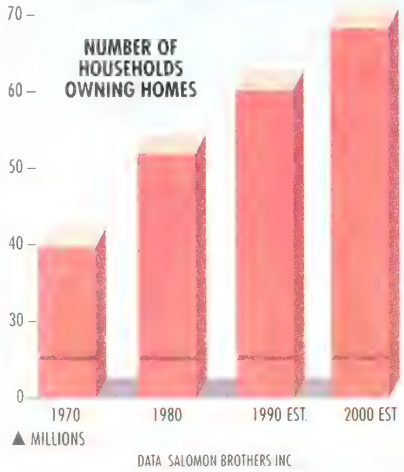
But those fears are groundless, argues Anthony Downs, a housing expert at the Brookings Institution. In a new report written for Salomon Brothers, Downs observes that as household members get older, they are much more likely to own homes rather than rent. Only 53% of those aged 30 to 34 are homeowners, but the percentage rises to 80% for households in the 55- to 64-year-old range. If the baby boomers follow the same patterns, those who could not afford a home when they were younger will become active buyers.

So Downs figures that in the 1990s, the number of homeowning households will rise by 8.5 million—a bigger increase than in the 1980s, despite the slowing in overall household growth (chart). This should prevent any major decline in home prices in most areas, concludes Downs. Indeed, if interest rates fall, the demand for homes could be even stronger.

By contrast, his analysis shows that rental prices, adjusted for inflation, could plunge in many parts of the country. Renters will become almost an endangered species, since the number of young households—who are most likely to be renting—is projected to fall by almost 4 million in the 1990s.

But Downs and other analysts emphasize that demographics may take a back seat to other factors. Cheap and accessible land, for instance, is becoming scarce in many parts of the country, observes Susan M. Wachter of the Wharton School. "Land used to be 10% of the cost of a house," notes Wachter. "But now it's 25% to 30% of the cost in many areas." One reason housing prices soared in Massachusetts and New York from 1980 to 1987 was the lack of convenient places to build new homes. The high cost of land is sure to put a floor under the value of existing homes in the 1990s.

HOME OWNERSHIP WILL STAY STRONG



WHO'S GETTING BAILED OUT—AND WHO'S GETTING LEFT OUT

Billions of taxpayer dollars are being diverted to bail out savings and loans around the country. And with a disproportionate amount of money going into Texas, you'd think that the benefits of that federal largesse would be widely enjoyed. Not so, according to a report by the Southern Finance Project, a research center based in Charlotte, N. C. The report found that in 1989 minority neighborhoods in Dallas, Houston, Austin, and San Antonio received relatively few mortgage loans from a group of banks rescued by Washington the previous year. Out of $388 million in mortgage loans made in these cities in 1989, only 0.6% went to borrowers living in nonwhite areas. And that's not simply because blacks and Hispanics earn less. In 1989, the banks in the study made only 1.3 loans per thousand homes in medium-income minority areas, far below the 14 loans per thousand homes made in comparable white areas.

The banks named in the study emphasize their commitment to lending to minority communities. Catherine P. Bessant, director of community investment for one of the banks, NCNB Texas, argues that the events of 1988 made 1989 an unrepresentative year. Bessant points out that 7% of NCNB's mortgage loans in 1990 are going to low-income and minority neighborhoods, triple the 1989 rate. Even if that improvement is matched by other banks in the study, it may not be enough to keep some members of Congress from wondering just how the federal bailout money is being spent.

SPENDING ON SCHOOLS CARRIES A REAL PAYOFF FOR STUDENTS

Across the country, state and local governments are raising taxes and earmarking the revenues for education. At the same time, irate taxpayers are asking whether the added funds will actually help pupils. A new study concludes that spending money to improve schools can show results on a very tangible bottom line—the future earnings of students. According to David Card and Alan B. Krueger of the National Bureau of Economic Research, men who go to schools with low pupil-teacher ratios end up earning higher wages. And schools with better-qualified and better-paid instructors also give students an advantage in the labor market.

How big is the difference? By their figures, reducing the number of pupils per teacher from 26 to 20 increases the annual earnings of high school graduates by 2.3%. While that seems like only a small gain, it's big enough to justify an increase in school spending, says Krueger, since even a small improvement in school quality can raise people's wages for their entire working careers.

DETROIT WILL DRIVE THE GNP UP —AND THEN DOWN

Turmoil in the auto industry will take the U. S. economy for a roller coaster ride in the second half of 1990, says economist George J. Iwanicki of Kidder Peabody & Co. In the third quarter, auto makers will be pushing hard to build up an inventory cushion of cars to sell before the United Auto Workers' contract expires on Sept. 15. Iwanicki calculates that this stockpiling will raise gross national product growth by three-quarters of a percentage point. With the rest of the economy close to stalling, Iwanicki notes, "the auto industry may help keep us out of recession in the third quarter."

But that favor could haunt the economy in the fourth quarter. If the contract dispute is settled without a walkout, the auto makers will have to cut output to get inventories of unsold cars back to normal. This will slice three-quarters of a percentage point off GNP growth. Iwanicki warns that a prolonged strike could lower GNP growth in the fourth quarter by 1.4 percentage points. And that could easily topple an already weak economy into recession. ▣

Y 16, 1990

BY JAMES C. COOPER AND KATHLEEN MADIGAN

HE FED STILL CALLS THE SHOTS —BUT OTHERS ARE SHAPING THE GAME

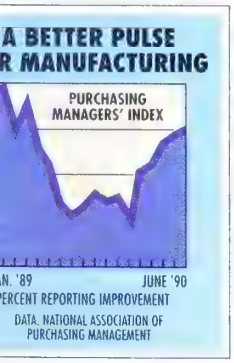
n recent years, the Federal Reserve Board has enjoyed almost total control of domestic economic policy. The intractability of the federal budget deficit kept fiscal policy in gridlock, leaving monetary policy as the only game in town. That's going to change in second half, and the economic outlook hangs in the ance.

'he prospect of a budget deal this summer marks the t significant shift in fiscal policy in years. Throughthe 1980s, budget policy was biased largely toward ansion. But the tax hikes and spending cuts accompang any deficit-cutting effort will be contractionary. d they will hit at a time when a broad slowdown in nand has already made the economy more vulnerable recession.

'he Fed is no longer able to make policy in a vacuum. d that will complicate its efforts to keep inflation and economy headed in the right directions. The Fed eady faces one important decision in the second half: uld it ease monetary policy amid signs of a weakeneconomy? Now, it faces another: Should it ease to set the coming drain from fiscal policy?

ACTORIES' ITAL IGNS ARE MPROVING

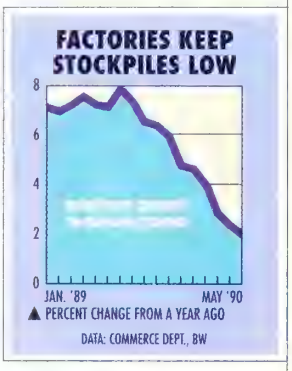
The first question undoubtedly ate up a big chunk of time at the Fed's policy meeting on July 2 and 3. New softness in a variety of indicators—especially conner spending and homebuilding—probably has given central bank a bias toward ease in the coming weeks. However, the Fed seems to be in no hurry to push vn interest rates just yet. That's because other data, ticularly from manufacturing, have looked stronger. of the Fed's progress against inflation has come in goods-producing sector, and it will be especially cauus not to risk those gains by easing prematurely.



Indeed, the National Association of Purchasing Management reported that its index of industrial activity rose in June for the fifth consecutive month, indicating that the factory sector is at least stabilizing after last year's slump (chart).

The index rose to 51.1% in June, from 50.7% in May and 50.2% in April. That was the first time that the index has n above 50% for three consecutive months since early t year. Monthly readings above that mark indicate t the factory sector is expanding; under 50% means manufacturing is in a recession. Factories are getting support from exports and from inventory rebuilding, especially in the auto industry.

The Fed probably took a close look at one part of the NAPM report: The purchasing managers said that delivery times from suppliers were slower for the first time in 14 months, partly reflecting low levels of inventories. And materials prices rose for the second time in three months after a string of declines. Fed Chairman Alan Greenspan has expressed concern that low inventory levels could fuel price pressures should demand pick up.



Clearly, manufacturers have tight reins on their inventories. Factory stockpiles did not grow at all in May, holding at $372.4 billion, according to the latest government data. Over the year, inventory growth has slowed sharply (chart). In May, the ratio of factory inventories to shipments—an indication of how stocks match up with demand—fell to a very low level.

However, any concern at the Fed that manufacturing is about to take off again is probably unwarranted. Despite the factory sector's better vital signs, new inflationary pressure from manufacturing seems unlikely. Washington also reported a 2.1% gain in factory orders for May, but bookings have been about flat for more than a year. Demand from all sectors last quarter may have been the weakest in the expansion. And now that consumers are fading, the outlook for new orders isn't very bright. Manufacturing may have stabilized, but it's not likely to make much headway.

The Fed will probably want to see how the story in manufacturing plays out before making any move to ease credit. Unless the economic data turn surprisingly weak, it may decide to keep policy unchanged until fall.

SLOW GROWTH SUITS THE FED FINE

The Fed's seeming complacency over current policy is not hard to understand. The economy is growing pretty much in line with the central bank's desires. Since the second quarter of last year, real gross national product has grown at an annual rate of 2%, including a pace of only 1.5% from the third quarter of 1989 to the first quarter of 1990. Second-quarter growth was likely in that range as well.

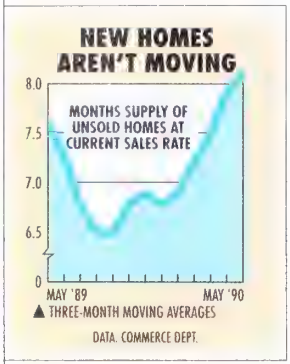
The Fed's stated goal is to reduce inflation by holding economic growth below its long-run potential of about

2.5%, while avoiding a recession. So far, the progress on inflation has been less than satisfying because of stubborn service inflation. But the Fed believes that the economy's sluggish pace will eventually bring results.

BUILDERS REALLY HAVE THE BLUES

If the wait goes on much longer, though, the Bush Administration will likely lose its patience. Slow economic growth has already robbed federal coffers of needed tax revenues. High interest rates are costing the Treasury billions in interest on the national debt—now about the same size as the deficit. And the White House knows that a budget deal will drain the economy even more.

Construction is only one sector that is already hurting, partly because of higher interest rates. Now, tighter lending standards at banks in the wake of stricter regulation of new real estate loans could be a knockout blow. Homebuilding—one of the economy's most broadly important sectors—is especially weak. And the construction outlook for the second half isn't encouraging.



Construction spending fell 0.4% in May, to $445.6 billion. A big increase in public building kept the total from falling further. Spending in the private sector dropped 1.8%, after a 1.4% plunge in April. Outlays for both residential and business projects fell sharply.

Spending on residential construction fell 2.2% in May. New homes just aren't selling. New single-family homes sold at an annual rate of 532,000 in May, about the same as in April. May sales were down 18% from a year ago.

Homebuilders have a big stock of vacant homes. During the past three months, unsold homes averaged an 8.1 months' supply at the recent pace of sales (chart). That's the highest for any three-month period in about eight years—since the last recession.

Business construction, particularly office building, is also beset by oversupply. Spending on nonresidential construction fell for the third consecutive month in May. Office construction is down 14% from a year ago.

The outlook for the rest of the year is dim, according to the trend of new-construction contracts, compiled by the F. W. Dodge Div. of McGraw-Hill Inc. The value of contracts—a leading indicator of spending—rose 6% in May, to $244.3 billion, but contracts in April had fallen to the lowest level in about four years.

So far this year, new contracts are 7% below their level in the same five months of 1989. The biggest shortfall is in the Northeast, where new construction is off 24% from last year.

THE BOND MARKET WILL BE THE JUDGE

The White House is counting on an easier monetary policy from the Fed to offset any additional drag that a budget deal would place on construction and other already soft sectors of the economy. But the Administration might not get all that it's hoping for.

Fed Chairman Greenspan has said that long-term interest rates would fall significantly in the wake of a credible accord on the budget. However, the bond market will tell the Administration and Congress how credible their prospective deal will be. And that will determine how much the Fed will be inclined to ease short-term rates.

With fiscal policy back on the burner, the Fed's strategy of fine-tuning the economy to control growth and inflation will be much more difficult to pull off. In addition, the Fed is now likely to come under intense political pressure to cut interest rates. This will be a new ball game for a Fed that has had things pretty much its own way for the past several years. How it plays will determine whether the economy wins or loses.

THE WEEK AHEAD

INSTALLMENT CREDIT

Monday, July 9

According to a survey by MMS International, a division of McGraw-Hill Inc., most economists expect that consumer installment credit rose by $1.65 billion in May, more than the $0.58 billion increase in April. The rise could be smaller, however, given the month's drop in consumer spending and the continued weakness in car sales.

PRODUCER PRICE INDEX

Friday, July 13, 8:30 a.m.

The MMS consensus projects producer prices for finished goods to rise 0.2% in June. That would follow a 0.3% increase and declines in the three previous months. Weaker energy prices held back the rise—but only a little. Excluding food and energy, finished-goods prices are expected to increase 0.3%. Higher prices for capital equipment and another big jump in prices of tobacco products led the gain. Inflation in producer prices remains especially tame. In the past year, prices of finished goods have risen only 3%. Inflation at the earlier stages of processing is even lower.

RETAIL SALES

Friday, July 13, 8:30 a.m.

Retail sales in June are expected to be up only 0.3%. Retail buying had declined in each of the three previous months. The small June gain reflects lackluster sales reports from department stores and continued weakness in car sales. Adjusted for prices, real retail sales are likely to post no gain in June, and they are already well below where they were a year ago. Even excluding the ups and downs of car sales, which have skewed the numbers in recent months, nonauto retail sales have looked similarly listless.

TEN-DAY CAR SALES

Friday, July 13, 4:30 p.m.

The annual rate of car sales during the first 10 days of July probably remained in the same uninspiring range of recent months. Sales in each month since February have been between 6.6 million and 6.8 million. They aren't likely to get much better, either, particularly after Detroit's recent price hikes.

With us it's not a game.

Your company's information and communications strategy has to include lot more than an opening gambit.

Which is one reason why over half of the Fortune 500 companies use NYNEX.®

From our broad range of telecommunications expertise, to the way we can ptimize your network, our Companies can provide the communications and nformation systems that will work with your existing operations and expand long with your business.

NYNEX can move you to the latest software and computer systems. Customize solution. Link all your systems, whether they're local, wide area or positively lobal. And, provide the training and maintenance to maximize your investment.

We invite you to call NYNEX at 1 800 535-1535.

We won't leave you in a stalemate.

Need to communicate? Need to compute? The answer is

NYNEX

1989 NYNEX Corporation

JULY 16, 1990

TACKLING THE UNKINDEST CUTS

NOW EVERYTHING IN THE BUDGET IS FAIR GAME—INCLUDING ENTITLEMENTS

Want to know whether President Bush and congressional budget negotiators are closing in on a serious deficit-reduction package this summer? Keep your eye on the Angora goat.

While the President's lips remain the focus of most budgeteers' attention, the expected $20 billion to $25 billion needed in new revenues for 1991 aren't the toughest issue facing White House and congressional negotiators. The real blood will be shed over massive government benefit programs, known in Washington-speak as entitlements. The targets include Social Security, medicare, and aid to veterans, the poor, and farmers (box). And even such obscure programs as subsidies for goatherds have their ardent defenders.

Together, these programs account for more than half of federal spending for everything except interest (chart). If things don't change, by 1995 they will make up nearly two-thirds. Budgeteers can slash defense. They can boost taxes. They can chip away at other domestic spending. But unless Congress and the White House do something about the growth of these automatic spending programs, they don't stand a chance of getting the deficit under control.

In fiscal 1991, the government will spend more than $600 billion on all these entitlement programs. Negotiators would like to trim that by $10 billion to $15 billion in '91, and by a total of at least $100 billion over the next five years. Says William A. Niskanen, a former economic adviser to President Reagan: "You can't do major deficit reduction without hitting entitlements."

But people and businesses hooked on federal handouts won't give them up without a fight. Nowhere is that more true than with the Big Daddy of them

UNCLE SAM'S HANDOUTS

To rein in the budget, Congress and the White House will have to shear some of their favorite programs. Look for cuts in these entitlements

Fiscal year 1991 cost
(billions of dollars)

MEDICARE
$116

MEDICAID
$45

WELFARE AND NUTRITION PROGRAMS
$31
Including supplemental security income, family support, and nutrition

Social Security, ich will cost nearly 5 trillion in the next e years. "Nobody," rs Senate Majority ader George J. Mitch- (D-Me.), "wants to e for a cut in Social urity."

But they may have Right now, budget gotiators are looking two ways to squeeze ney from the Social curity system. The t is to limit benefit es, either by freez- annual cost-of-living reases for a brief period or by chang- the way they're calculated.

The second way is to increase the ount of Social Security benefits that uld be subject to income taxes. Today, y couples whose income exceeds ,000 pay taxes on their benefits. A dget deal could tax benefits for all but poorest retirees. Or it could treat ial Security as if it were a private sion plan and tax all benefits that eed a retiree's contribution.

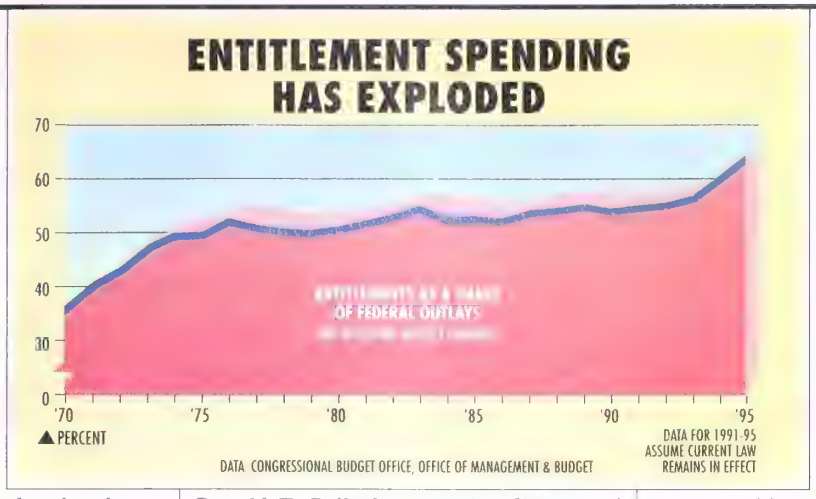
Lobbyists for the elderly are grum- g. "Our primary message is: Keep ur hands off Social Security," says Ronald F. Pollack, executive director of Families United for Senior Action. But some senior citizens' groups, including Pollack's and the American Association of Retired Persons, would prefer a tax to a freeze in benefits, which they contend would hurt the poor the most. They also insist that any reductions be part of an overall budget package that hits the wealthy and the Pentagon.

TAUT NET. Taxing benefits has a big bookkeeping advantage as well. Congress will almost surely vote this summer to remove the Social Security surplus from the annual deficit calculation. But taking Social Security off budget means Congress can't claim any deficit reduction by cutting benefits. They can, however, ring up "savings" by raising income taxes on benefits, since those new revenues go into the general fund.

The elderly won't be off the hook even if budgeteers decide that reforming Social Security is more political trouble than it's worth. That will only increase the pressure on seniors' other major aid program: medicare. The $100 billion-a-year program is expected to grow by 80% in the next five years, and that's unacceptable to both Congress and the White House.

Any surgery would be painful, since the feds have been slicing away at medicare for seven years. In the past, most cuts have come from payments to doctors and hospitals. But doctors have found ways around the restrictions, and many medical facilities are in serious financial trouble. "The medicare system for rural and downtown hospitals is falling apart," says Frank Shafroth, chief lobbyist for the National League of Cities. This time, Congress may force the powerful seniors to swallow higher medicare premiums and deductibles.

Welfare and child-nutrition programs for the poorest families will likely escape this round of budget cuts. Few lawmak-



FARM AID
$8

FOOD STAMPS
$16

SOCIAL SECURITY
$263

VETERANS' BENEFITS PROGRAMS
$19
Including benefits and pensions
DATA: CONGRESSIONAL BUDGET OFFICE

ers are prepared to further shred the "safety net" that's been so tattered during the past decade. But it's not just the old and the poor who benefit from these automatic government aid programs: The middle class is a big recipient, too. Veterans, regardless of income, get about $19 billion a year.

GOLDEN OPPORTUNITY. That leaves the goats. The government currently plans to spend nearly $50 billion over the next five years on farm subsidies. More than 18% of the aid goes to the wealthiest 6% of farmers. Virtually everything that grows, bleats, or moos is subsidized, either through price supports or low-cost insurance against crop failures. In 1988, the government paid goatherds $47 million to prop up mohair prices.

Even before the budget talks got serious, a coalition of liberal and conservative lawmakers turned up the heat on farm subsidies. Representative Richard Armey (R-Tex.) wants to end payments to farmers who net more than $100,000 a year. "I see no reason to give hefty subsidy checks to those with incomes much higher than the average American," he declares. The legislation that authorizes farm-subsidy payments expires this year, giving Congress a golden opportunity to go after waste in the agriculture budget. But farmers, who fear a 20% drop in income, will enlist such allies as Senate Minority Leader Bob Dole (R-Kan.) to resist big subsidy cuts.

Congress and the White House aren't happy about it, but they know what they must do. Bush may have to break another vow—his 1988 promise to lay off Social Security. Lawmakers recall with pain the 1989 firestorm over a new catastrophic health care program. But entitlements are where the money is. And that's why there's a big bull's-eye painted on the rump of that Angora goat.

By Howard Gleckman, with Susan B. Garland and Vicky Cahan, in Washington

Commentary/by Mike McNamee

RELAX, RELAX—CUTTING THE BUDGET WON'T CRIPPLE GROWTH

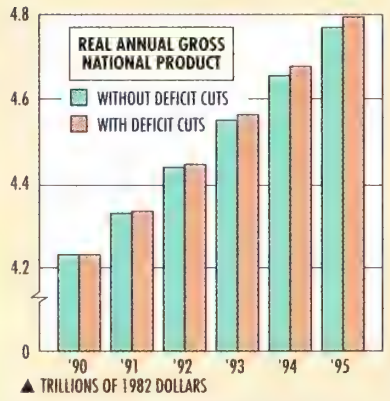
The reversal was breathtaking. No, not President Bush's flip-flop on taxes. The really startling about-face came from the Responsibility Brigade—that legion of economists, politicians, and editorialists that has been calling for years for decisive action against a menacing budget deficit. Now that Bush and Congress may actually do something, many of those same pundits are expressing horror that the double whammy of tax hikes and spending cuts will bring the economy to its knees. Their new refrain: "We want Washington to do the right thing—but not right now."

Worrywarts, relax. True, it would have been better to mop up the red ink during the boom years of the mid-1980s. With the economy currently eking out growth at a slow 1.5% to 2% rate, a massive swing to contractionary fiscal policy could—all else being equal—tip the economy into recession. An ill-designed tax hike could raise inflation at the same time, creating the worst of all stagflationary worlds.

SOFTEN THE BLOW. But deficit reduction isn't likely to happen that way. Political realities will cushion the first-year impact of budget-cutting, and jubilant markets and a vigilant Federal Reserve will team up to offer lower interest rates to soften the blow. There will be lots of winners and losers. Laid-off defense workers won't benefit if lower mortgage rates kick the housing industry into gear. But for the economy as a whole, deficit-cutting should pay for itself, and more. The Congressional Budget Office calculates that the resulting lower interest rates will more than offset the drain of higher taxes and lower spending (chart).

When he first became chairman of the Fed in 1987, Alan Greenspan was constantly pushed to tell Congress how much the deficit could be cut without risking a recession. His stock reply: The economy can stand a lot more budget restraint than the political process can ever deliver. Three years later, that's still true. With the 1991 deficit headed for $230 billion, Bush and Congress are talking about budget cuts totaling $50 billion—less than 1% of a $5.4 trillion economy. Squeeze the accounting tricks and fakery out of that figure, and you'll probably end up with about $30 billion in actual fiscal drag on the economy. Even with today's slow growth, that's not enough to bring on a recession.

COULD A TIGHTER BUDGET SPUR THE ECONOMY?



DATA: CONGRESSIONAL BUDGET OFFICE

Will consumers panic and stop spending at the prospect of new taxes cutting into their take-home pay? Not likely. Washington doesn't plan to impose higher income taxes on most Americans. Hikes in cigarette, alcohol, and gasoline excises may be painful, but they won't dampen consumer confidence or discourage overall spending. A lower capital-gains tax rate, which Bush will demand as a trade-off for a uniform 33% top bracket, will offset the initial tax drag.

What's more important, cutting the deficit will bring down interest rates. In fact, say market-watchers, hopes for closing the gap are behind the recent 50-basis-point drop in medium- and long-term rates. And that's without any action by the Fed, which has held its key overnight rate at about 8.25%.

The Fed may disappoint those, including many at the White House, who expect easier money just because chances for deficit reduction have improved. Long-term rates, vital to both housing and capital spending, are set more by the markets than by the Fed. Greenspan knows he can't force those rates down. But the Fed will certainly be willing to ratify the markets' rate cuts, and perhaps push them along a bit, if the deficit cuts are convincing. Trading easier money for a tighter budget is a delicate task, but the Greenspan Fed seems up to the job.

Some of Greenspan's biggest fans, of course, are card-carrying members of the Responsibility Brigade. But now that the true test has come, they're paralyzed by their own T-word: timidity. The American economy is resilient, and cutting the deficit will only make it stronger. Isn't that what they've been telling us for the past eight years?

RE'S THE BEEF? IF FOOD SHORTAGES TOUCH OFF RIOTS, *PERESTROIKA* COULD COLLAPSE

UDDENLY, THE UNTHINKABLE ALMOST CERTAIN

to Moscow has Bush's blessing—if the reforms continue

Audacious." "Ridiculous." Oh, how the Bush Administration sneered in March, when Repre- ative Richard A. Gephardt (D-Mo.) osed shipping food to the Soviet n, relaxing trade curbs, and upping its to Moscow from the Export-Im- Bank of the U. S. But with Soviet ident Mikhail Gorbachev's political lems mounting, and Germany and nce advocating massive Western aid Moscow, the Administration is quiet- oming around to Gephardt's view.

s President Bush prepares for the 8-10 economic summit in Houston, ontinues to suggest publicly that Eu- and the U. S. are split on a Soviet out. Privately, however, the Adminis- on is mapping out an aid strategy. etary of State James A. Baker III sions technical help now, an aide , followed by gradual infusions of e substantial help—but only if Mos- keeps on overhauling its economy tightens the reins on Cuban leader l Castro and other clients (page 47).

SILE LOCKS? Technical help, accord- to a West German government con- ant, may include U. S. security de- s for Soviet nuclear weapons, which Soviets fear could be jeopardized in disorders. A Pentagon spokesman es such aid is under consideration.

ne Administration is abandoning its l line, for fear that, if it is isolated the aid issue, the U. S. may lose its leadership position within the Western alliance. It is also concerned that *perestroika* may not stave off a severe food and consumer crunch in the Soviet Union. Riots touched off by continued shortages could jeopardize the evolution toward a less aggressive Soviet Union. "What you want to do is use overseas support as a vehicle for reform," says a senior State Dept. official.

The U. S. approach assumes a Western aid effort that would be more loosely coordinated than what West German Chancellor Helmut Kohl is seeking: a united, up-front commitment of $15 billion in loans targeted at such reforms as overhauling the Soviet food industry. "Any collective effort must take account of who can do what, when," says the State Dept. official. "It may be that what's done is staggered over time." Under this scenario, Germany and some European partners may provide loans soon as seed money. U. S. credits and a relaxation of trade curbs would kick in later. Japanese assistance could also follow, possibly next year, if Tokyo and Moscow resolve a 45-year-old dispute over four islands north of Japan.

> The U. S. is ditching its hard line for fear that it might lose its position of leadership in the West

No real movement is likely until October, when a European Community report is due on ways to structure assistance. Bush can't move much faster, because of a slew of laws that curb trade and limit export credits. They can't be rolled back until the Administration waives the Jackson-Vanik Amendment, which bars normal trade relations with the Soviets because of their restraints on emigration. Bush has refused to do that until the Soviets pass a law guaranteeing the right to emigrate, but a vote isn't scheduled before September.

CASH ON HAND. If Jackson-Vanik is waived, the Administration may nudge Congress to approve trade credits and ease curbs on high-tech exports. More aid could follow, if Gorbachev pushes ahead with promised reforms, such as selling state-owned apartments and industries and launching a commercial banking system. Some changes are already under way: Moscow has announced a partial giveaway of state apartments to current tenants.

Moreover, the Administration is loath to provide subsidies for the Soviets while Moscow is still funneling billions in aid to Cuba, Afghanistan, and other regimes hostile to the U. S. But Gorbachev says he plans to phase out $3 billion of economic aid and trade subsidies to Castro next year. The Administration is also urging Moscow to lean on the Cuban leader to halt arms shipments to Marxist rebels in El Salvador.

But some analysts predict that money will be wasted if Soviet reforms are piecemeal. "Nothing short of a comprehensive package of Soviet reforms will be terribly effective," says John P. Hardt, associate director of the Congressional Research Service. What's more, with Kremlin hard-currency deposits in Western banks totaling $14.8 billion, more money isn't the answer, argues Joseph Tragert, an economist at PlanEcon Inc., a Washington consulting firm. "This isn't Poland," he says. "The Soviets aren't broke."

Even some Soviet reformers think massive Western aid now would be a mistake. "It will shore up the conservative forces," warns Gavril H. Popov, a free-market economist and chairman of the Moscow City Council. "The greater the economic pressure, the quicker Gorbachev will be to make an alliance with the left radicals." As recently as June 29, the only Soviet aid Bush promised was self-help seminars by high-ranking U. S. advisers. But as he has shown, Bush can change his mind, big-time.

Amy Borrus in Washington, with [illegible] Schares in Vienna and John Tem- [illegible] in Bonn

HUDSON/SIGMA

THE SUPREME COURT

THE VERDICT ON THE LAST TERM: 'GENERALLY, BUSINESS LOST'

From antitrust to taxation, the high court deferred to states' powers

Conservatives haven't had much to cheer about lately, what with the threat of new taxes and the woes of the antiabortion movement. Now comes more disappointment for the right wing: Unaccountably, the long-predicted conservative revolution at the Supreme Court seems to have stalled.

The court's rulings in the term ended June 28 still reflect a definite rightward tilt—especially the pronouncements on criminal justice issues. But the conservative majority failed to deliver the wholesale revisions of the law envisioned a year ago, when the court's momentous rulings made it harder to win discrimination cases and curbed abortion rights. In its final hours, the court even approved, by a 5-4 vote, federal affirmative-action programs that favor minorities.

UNLUCKY STRIKE. The court's brand of creeping conservatism has not been especially kind to Corporate America. In major decisions involving antitrust, taxation, and labor law, the high court has shown a marked deference to the powers of the states, which often regulate business (table). "This court is not a business court," says conservative legal commentator Bruce Fein. "Generally, business lost."

Among business' worst defeats was the court's unanimous ruling that allows states to undo mergers that have already withstood the scrutiny of federal trustbusters. In approving California's bid to challenge American Stores Co.'s $2.5 billion merger with Lucky Stores Inc., the justices threw a monkey wrench into the already stifled dealmaking business. Similarly, the high court enhanced the states' powers by letting suits alleging violations of federal employment laws and the Racketeer-Influenced & Corrupt Organizations law be filed in state as well as federal courts.

What the court didn't do in some instances proved as telling as what it did do. By refusing to hear an Illinois case, it upheld state court charges against five executives of Chicago Magnet Wire Corp. who were accused in 1985 of failing to protect employees from exposure to dangerous chemicals. Business groups had urged the court to take the case, arguing that the threat of prosecutions of companies by state attorneys general undermines the federal workplace law. "There's been a continuation of the trend where they defer to the states when they can," explains Stephen A. Bokat, the U.S. Chamber of Commerce's general counsel.

Troubling Bokat and others is another trend under Chief Justice William H. Rehnquist: the court's steadily shrinking caseload. In the 1989 term that just ended, the court heard arguments in 146 cases, down from 170 heard the year before and 167 in the 1987 term. To the degree that the court favors cases such as appeals of death penalties and questionable police arrests, questions of commerce fall by the wayside.

Two cases likely to be heard this fall could change a perception that the court doesn't appreciate business cases. The justices will again weigh the constitutionality of punitive damage mega-awards (page 62). And they will review whether programs designed to protect women of child-bearing age from workplace hazards violate sex discrimination laws.

'EVENLY DIVIDED.' If there is a clear pattern to the court's rulings, it comes in the criminal-justice arena. The conservative bloc upheld state death penalties and ruled that the government doesn't need a search warrant to inspect property located overseas and owned by foreigners. It also told parents suspected of child abuse that they can't use the privilege against self-incrimination to avoid turning their children over to the police.

The court's rightward bent also was evident in a pair of rulings on abortion—the one issue that has defined the Rehnquist court. Yet even here, in ruling to uphold state laws that require parental notice before permitting minors to get abortions, the justices seem unwilling to take the next step: overturning the 1973 Roe v. Wade case, which found that a woman has a constitutional right to end a pregnancy. "In terms of issues most of interest to the general public, it clearly shows the court is evenly divided," says Richard Samp, chief counsel of the conservative Washington Legal Foundation.

But the right wing shouldn't be too downbeat about it. With three liberal justices in their eighties, the delicate balance may soon change. Even one departure from the court could shift the conservative revolution back into high gear.

By Tim Smart in Washington

MITH CORONA'S MARKET TAPPING OUT

typewriters and word processors are losing out to PCs

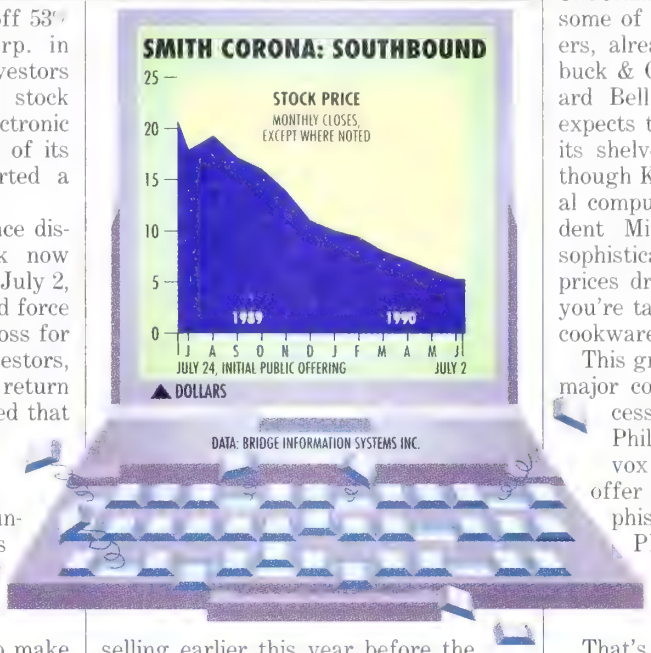
When Hanson PLC spun off 53% of Smith Corona Corp. in June, 1989, many investors snookered. Days after the stock t public at $21 a share, the electronic ewriter company laid off 10% of its k force, and the stock started a kneck descent.

/hat Smith Corona officials once dis-sed as a temporary setback now s like an extended plunge. On July 2, th Corona said soft sales would force ntory write-downs and a net loss for quarter ended June 30. Investors, ady hit with a negative 72% return heir stock for the year, learned that r 15¢ quarterly dividend will nk to a nickel.

LL A COW.' The dismal earnings d points to what may be a fun-ental flaw in Smith Corona's tegy. Nine years ago, sensing the market for electric type-ers was waning, the New aan (Conn.) company began to make d-processing machines as well. But ole word processors don't command consumer's dollar the way personal puters do. That could force Smith ona's new products to go the way of Underwood upright, no matter how y're souped up. Says David W. ger, marketing vice-president at Phil-Consumer Electronics: "Take a and paint zebra stripes on it. It's a cow."

xecutives at Smith Corona and Han-deny they were trying to pull a fast on shareholders with the spin-off. y say there's a strong niche for their ducts. A weak economy and alleged ping by Japanese competitors led to r earnings, says G. Lee Thompson, th Corona's chairman. But even Han-officials concede they're not pleased Smith Corona's performance. In , they brought in a Hanson group -president, William D. Henderson, to day-to-day operations.

emaining institutional holders aren't vinced that prosperity is just around corner. They watched earnings for quarter ended Mar. 31 fall by half, 6.1 million, on sales of $110.6 million. nings will slide nearly 40% for the t two fiscal years, to $33 million, or 0 a share, predicts Jeffrey O. Putter-, analyst at County NatWest Securi-. One institutional holder, Chase In-tment Counsel Corp., began furious



selling earlier this year before the bottom fell out of the stock. "We would have gotten out of all of it if the price had held one day longer," says President Derwood S. Chase Jr. Since December, Smith Corona's stock has plunged from 16 to around 5 (chart).

One trouble with the company's strategy is that prices on far more powerful personal computers are dropping dangerously close to Smith Corona's word processors, which cost up to $900. And manufacturers are learning how to make PCs easy to use for even the most technophobic home user. The result: A personal word processor market, once forecast at 1.2 million units per year, now seems to have peaked at around 250,000 units annually.

UPSCALING. Many retailers, including some of Smith Corona's largest customers, already see the trend. Sears, Roebuck & Co., which already carries Packard Bell and Laser brand computers, expects to have the new IBM PS/1 on all its shelves by the end of summer. Although K mart Corp. isn't selling personal computers yet, Marketing Vice-President Michael Wellman expects more sophisticated products to take over as prices drop. "It doesn't matter whether you're talking about word processing or cookware," he says.

This grim outlook even has caused one major competitor to take its word processor off the market. In January, Philips stopped shipping its Magnavox video writer. Now it will only offer products with the relatively sophisticated power of an IBM PC/AT. Philips' easy-to-use software menu is designed to lure timid users. "They're being converted," claims Berger.

That's an assessment that can only give Smith Corona's shareholders a chill. Hanson officials may see it as another bad omen, too. Smith Corona is the first company the giant British conglomerate has ever spun off to the public. If things don't turn around, it may be the last for a long while.

By Todd Vogel in Connecticut, with Mark Maremont in London

SOFTWARE

LOTUS THE COPYCAT KILLER POUNCES AGAIN

But its lawsuit against Borland's Quattro is no sure winner

For Lotus Development Corp., its recent copyright-infringement victory proved more than just a courtroom triumph. It was a call to arms. Days after defeating Paperback Software International Inc. in Boston federal court, Lotus on July 2 turned its sword on another rival: Borland International Inc.

For Borland, the suit comes at a critical time. Founded in 1983, the Scotts Valley (Calif.) company went public in the U. S. just seven months ago. Borland first established its reputation as a seller of low-cost computer languages that allow people to write their own programs. But in recent years, Borland has been trying to take on such software monsters as Microsoft, Lotus, and Ashton-Tate.

The subject of the lawsuit, Borland's Quattro spreadsheet, has taken only a few points from Lotus' dominant share. But that may be enough to worry the Cambridge (Mass.) king of spreadsheets. The suit could force Borland to alter its software. Moreover, notes Dean Witter Reynolds Inc. analyst Timothy McCollum, "this could scare customers away."

If Quattro is knocked out, Borland's bid for the big time would be cut

short. Quattro will account for some 15% of its $125 million in revenues this year, estimates International Data Corp. Other products chip in more, but "Borland intends Quattro to be a mainstay of their thrust in applications," says William J. Higgs, a vice-president at market researcher InfoCorp. "This could lead to a significant setback." Wall Street didn't miss that point: In the two days after news of the lawsuit broke, Borland's stock plunged about 25%, to 15⅞.

LAG TIME. Borland can take some heart in the sharp differences between this case and Lotus' three-year-old dispute with Paperback Software. Paperback's program, called VP-Planner, looked a lot like Lotus 1-2-3 and offered the same series of menus and commands. Unlike the Paperback Software product, Quattro is not just a 1-2-3 clone. The Borland program appears different on the computer screen, and it has its own unique features that some users prefer.

Borland's program also boasts the ability to switch to an interface that mimics 1-2-3—a feature designed to lure away Lotus customers. Borland's ads emphasize that buyers don't have to learn a new system. Notes Richard G. Sherlund, an analyst with Goldman, Sachs & Co: "It's an important sales point in wooing over 1-2-3 customers." So even if the court decides that Borland simply has to remove that option, it could seriously cut the company's sales.

Also in Borland's favor: Quattro has been on the market for years, and Lotus' delay in filing its suit may hurt. Borland cleverly beat Lotus to the punch by suing in California for a declarative judgment that its program does not infringe Lotus' copyright. That's likely to move the suits to San Francisco—where U. S. District Court Judge Vaughn R. Walker recently ruled that the look and feel of Apple Computer Inc.'s Macintosh did not infringe Xerox Corp.'s graphics software copyrights. That decision came in part because Xerox waited years to sue.

Lotus also filed a similar suit naming Santa Cruz Operation Inc. Its lower-profile spreadsheet is also quite different from the Lotus product: It runs on the Unix operating system, instead of DOS, where Lotus is dominant. SCO has not yet decided whether to defend its product, since it is a very small part of the private company's $100 million in revenues.

Borland President Philippe R. Kahn sees the suit as a desperate move. "Suing us won't stop the leak in Lotus' market-share dam," he warns. But if Borland doesn't get some breaks in the courtroom, it just might.

By Richard Brandt in San Francisco

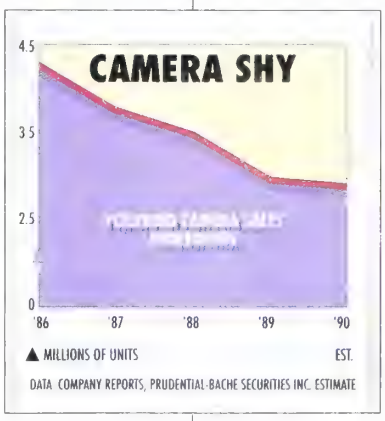
STRATEGIES

POLAROID AND MINOLTA: MORE DEVELOPMENTS AHEAD?

A small marketing deal could lead to a partnership in manufacturing

"Nothing works like Polaroid," boasts Polaroid Corp.'s current $60 million advertising splash. Nothing, that is, except Minolta. Seeking to revive its sagging consumer business, Polaroid on June 28 announced that starting in August, Minolta Corp. will sell Polaroid-built cameras under the Minolta name. It will be the first time since 1985, when a federal court decision forced Eastman Kodak Co. out of the business, that any company but Polaroid has sold instant cameras in the U. S.

The deal itself is modest—it includes only Polaroid's top-of-the-line Spectra Pro model, which should account for just 2% of the company's camera sales this year. But it represents a strategy that may be long overdue—and one which may grow more significant for a company facing declining markets (chart). Over time, Polaroid could expand demand for its hugely profitable film while reducing its stake in the low-profit camera business.



Polaroid has never sold its cameras to photo dealers under any name other than its own. The instant-photo business is "our bread and butter, and it's the only thing we've got," Chairman William J. McCune Jr. testified last year in Polaroid's ongoing patent-infringement litigation against Kodak. Indeed, there's still a chance that Polaroid will devalue its franchise by sharing technology.

WIDE PLAY. Yet Minolta, the leading maker of 35mm single-lens reflex cameras, could give instant cameras greater visibility in specialty photo stores, where most pricey cameras are sold. Polaroid, which sells many lower-priced models to mass merchandisers, "isn't as well liked by specialty retailers as we are," says James D. de Merlier, Minolta's marketing vice-president. And it's important that Minolta's $219, feature-packed instant camera gets wide play: Historically, buyers of the most expensive cameras use far more film.

Some specialty retailers doubt Minolta will do much better than Polaroid. The Japanese company boasts a stron brand name, but its sales force "has more pull than Polaroid," says Steph Berns, general manager of Berns Ca era Stores, a chain based in Alban N. Y. Although only 14% of America families actively use a Polaroid, for instance, the company's products are already available in most retail outlets.

Minolta, with an extensive dealer ne work in place, probably can sell camer more efficiently, though. Even after massive restructurin in 1988, Polaroid is u der intense pressu to slim down. An lysts estimate that n income this year cou fall as much as 10 to about $154 millio on sales of $2 billio By shifting distrib tion to Minolta, Pola oid may be able to c some of its own sal force—though Lee Brewer, vice-preside for worldwide sale says that he has no such plans.

The Minolta deal also could mark th first step in Polaroid's move away fro making cameras. Polaroid executives i sist the business is profitable, but won say by how much. Prudential-Bache S curities Inc. analyst B. Alex Hendersc estimates the company loses 15¢ on e ery dollar of camera sales. What almo everyone agrees on is that selling filr with gross margins of about 60%, is l crative. Brewer says Polaroid won't er manufacturing, but he has talked wit others about licensing arrangements.

Even more significant could be a coo erative venture in electronic photogr phy. Polaroid has spent millions develo ing equipment that captures photos c computer disks. But it lacks expertise building the advanced cameras then selves. If Polaroid can use the Minolt deal to show the Japanese that instar photography has potential, it could a tract joint ventures or licensing deal says Dean Witter Reynolds Inc. analy Eugene Glazer. But that's all way dow the road. For now, Polaroid simply mu sell more film. And for the first time, it letting someone else help.

By Keith H. Hammonds in Bosto

VHEN MEDICAL RESEARCH S FOR MEN ONLY

ıe outcry is growing against clinical tests that exclude women

When the research findings were published two years ago, they made front-page head-es: Lower your risk of a heart attack ıply by taking an aspirin every other y. It was quite a discovery—for half us, anyway. The research was done 22,000 physicians, nary a woman ong them. Scientists had no evidence ether aspirin provided the same bene-s for women or could hurt them.

The aspirin study was no aberration. ch year, hundreds of clinical trials are iated to measure the safety and ef-tiveness of new treatments or study v uses for old ones. But many of ıse trials exclude women.

MPLICATIONS. Initial concern over this .s led the National Institutes of alth in 1986 to issue guidelines de-ned to correct the problem. But on ıe 18, Mark V. Nadel of the General counting Office presented a grim re-t card to the House subcommittee on ılth and the environment: Nadel de-red that the NIH effort had made little gress and that women were still ex-ded from many trials. Among the ırtfalls: research grants approved hout information on the gender keup as well as all-male studies with rationale. "American women have n put at risk," fumes Representative ricia Schroeder (D-Colo.).

Misogyny run amok? Not quite. It's no secret that women can complicate a research trial. For one thing, researchers worry about the reproductive consequences of certain agents. Also, women's changing hormone levels during menstruation or menopause can alter the behavior of a drug in the body.

Yet bowing to those concerns leaves women in a dangerous gap. For the very reason that women don't make good trial candidates, doctors cannot be sure exactly how drugs tested on men will behave in women. Says Iris Schneider, co-chair of an NIH advisory committee on women's health issues: "There have been egregious omissions."

Take the aspirin study. Shortly after it was released, some physicians warned women not to take steady doses of aspirin. That's because high estrogen levels in most pre-menopausal women protect them from heart attacks. Aspirin can even be dangerous. On July 2, the Food & Drug Administration ordered aspirin makers to stiffen label warnings to pregnant women. The issue is now cropping up in AIDS research, too. Trials of new AIDS therapies are heavily biased toward men, even though women represent a growing percentage of cases. Using current guidelines for diagnosing AIDS, physicians may miss some infected women, says Mathilde Krim, co-chair of the American Federation for AIDS Research.

> 'American women have been put at risk,' fumes Representative Schroeder

MALE RATS. The deck also may be stacked against women in research into psychological disorders, says Dr. Susan Blumenthal, chief of the behavioral medicine program at the National Institute of Mental Health. Women are believed to metabolize certain antidepressants differently than men, though no studies have explored it in depth. And a frequent research model for depression is the "learned helplessness" behavior identified in rats in the 1970s. Male rats.

The Society for the Advancement of Women's Health Research argues that inequity doesn't stop at clinical trials. The group says women also get short shrift because such areas as breast cancer, contraception, and postpartum depression are not adequately studied. What's more, of more than 2,000 researchers at the NIH, only three are specialists in obstetrics and gynecology.

Companies may be less likely than academics to tolerate these biases: Restricting a drug's use to half the population is bad for the bottom line. Syntex Corp. made sure trials of its stroke-prevention drug Ticlid reflected the risk population's gender makeup—about 60% men and 40% women. Similarly, Genentech Inc. didn't let reproductive safety concerns short-circuit research on Relaxin, a hormone that could ease childbirth. Its safety profile is being analyzed in a group of surgically sterilized women.

Acting NIH director William F. Raub has vowed to give the issue more attention. Meanwhile, Schroeder and Representative Olympia J. Snowe (R-Me.) want Congress to earmark $100 million of NIH funds for women's health issues, including $80 million to rectify gaps in knowledge resulting from the exclusion of women in important studies.

Some researchers want to force clinical trial protocols to measure variables unique to women. Even they note that data on those variables are scarce. "It's difficult to predict where serious differences exist between the sexes," notes Krim. But to many, that's no excuse for not trying.

By Joan O'C. Hamilton in San Francisco, with Peter Hong in Washington

Now that everyone agrees how a computer should work

Judging by what you see on magazine covers these days, the world now wants what the Macintosh® computer has always had. And, suddenly, the idea that a personal computer should be easy for people to use has been embraced by virtually every major player.

Well, since "Mac-like" is the promise on every lip, this might be a good time to point out just what a Mac® is like.

What makes a Macintosh a Macintosh is more than cheerful icons, a mouse, pull-down menus and other surface manifestations. Because a Macintosh is a Macintosh from the inside out. Conceived from the chip up to work intuitively and visually.

Because it's truly consistent, the entire family of Macintosh personal computers all run the same software with identical point-and-click simplicity.

Because it's a true system, Macintosh printers and other peripherals all connect together quickly and logically. Just plug them in and turn them on.

Because we engineer both the hardware and its operating software, Macintosh runs with the smooth speed and precision you'd expect from any perfectly integrated design.

And because Macintosh isn't a "graphical" shell grafted on top of a character-based system, it doesn't expend lots of expensive computing power trying to do something it wasn't designed for.

Which is why, for less than it usually costs to buy the software and the high-end hardware needed for a Mac look alike, you can have the true article.

Instead of making do with a handful of graphicized programs, you can choose from the thousands of highly

don't come from us. They're from a 1990 study conducted by Diagnostic Research, Inc. among Fortune 1000 *MIS managers and business computer users. Call and we'll send you a copy.*
Computer, Inc. Apple, the Apple logo, Mac, and Macintosh are registered trademarks, and SuperDrive and "The power to be your best" are trademarks of Apple Computer, Inc.

try the only one that actually works that way.

ovative business applications developed specifically for ntosh over the last seven years. And instead of patiently wing the long path from yesterday's MS-DOS to Windows e interim and to OS/2 in the someday, you can make simple step to Macintosh.

The benefits of that step, according to a new indepen- study* by Diagnostic Research, Inc., are considerable.

It seems when people have a machine that works people do, they get more done with it. Information man- s in the study gave Macintosh productivity ratings were 32% higher than for PCs running Windows. ch in practical terms is like getting almost two extra per week, or 17 more weeks out of a year.

Meanwhile, what would you sacrifice by making the nge to Macintosh?

Not your PC files. Every Macintosh equipped with an Apple® SuperDrive™ disk drive moves information easily between a Macintosh and an MS-DOS or OS/2 PC on industry-standard, 3½-inch floppy disks.

And not your PC programs, either. With products like Mac286 a Macintosh can run virtually any DOS application. We invite you to call 800-538-9696, ext. 875, for the names of your nearest authorized Apple resellers.

Then come in and see what inspired the monumental changes you've been reading about.

After all, now that everybody else is trying to sell you a Macintosh, maybe you should buy one.

The power to be your best.™

S and Windows are registered trademarks of Microsoft Corporation. OS/2 is a registered trademark of International Business Machines, Inc. Mac286 is a trademark of Orange Micro, Inc 1000 includes Fortune 500 and Fortune Service 500, which are registered trademarks of Time, Inc. Reprinted from PC Magazine 9/12/89 and PC Week 10/30/89 © 1989 Ziff Communications Co

ENTERTAINMENT

THAT'S ALL, FOLKS?

Warner's lawsuit may really kill Pathe's MGM deal. Then again . . .

Time Warner Chairman Steve Ross covets *The Pink Panther.* For three months, he has been trying to snare rights to it and other classics in the United Artists film library. He never figured that Giancarlo Parretti's Pathe Communications Corp. would snatch away those rights just when he thought he had captured them.

That's one charge in a lawsuit Warner filed against Pathe on June 29 in state court in Los Angeles. It accuses Pathe of double-dealing ever since Warner agreed on Apr. 9 to help Parretti raise half the $1.3 billion he needs to complete a takeover of MGM/UA Communications Co. Warner is seeking $100 million in damages for breach of contract. Pathe and MGM officials declined comment.

Although Warner had been bickering publicly with Parretti, it didn't sue until Pathe announced on June 28 that it would look for a lender other than Warner. Among the charges: that Parretti inked a pact giving Warner exclusive video-distribution rights to certain Pathe films eight days after assigning first rights to the same films to MGM/UA. It also says Parretti promised Warner distribution rights to as many as 40 Pathe films, then scratched out Warner's name on the draft agreement, replacing it with MGM's.

WHAT RIGHTS? And on June 21, Warner learned that Pathe had revised its merger agreement with MGM, allowing MGM the right to license the films in the valuable UA library. But Warner had agreed to help Parretti on the condition that it would have a say in the licensing rights as well as a first lien on the UA library. In fact, when Ross agreed to the Apr. 9 deal, one Warner insider speculated that Ross was helping Parretti largely in hopes that Warner might end up owning UA's library. Warner still has the lien, says a source close to Warner, "but if MGM licensed the entire library, what rights would Warner have?"

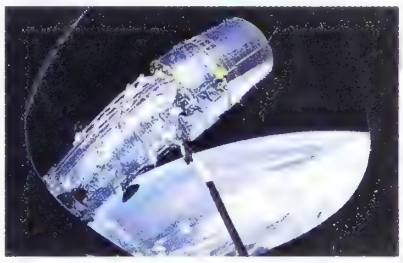
What now? Parretti apparently wants to cut a new deal—perhaps even with Ross. Says a source close to Warner: "Maybe [the deal is] dead, maybe it's not." It may depend on just how badly Steve Ross wants *The Pink Panther.*

By Susan Duffy in New York and Kath- Kerwin in Los Angeles

Commentary/by Seth Payne

NASA IS LOSING ALTITUDE. RUN IT LIKE A BUSINESS

Can't NASA do anything right? Ever since the 1986 Challenger disaster, the National Aeronautics & Space Administration has been working feverishly to restore the public's confidence. But another batch of mishaps has given the space agency a black eye. What was to be its greatest scientific triumph of the decade—the $1.6 billion Hubble Telescope—has been marred by a microscopic defect in the instrument's extremely precise mirrors. Meanwhile, potentially dangerous hydrogen leaks have grounded the shuttle fleet indefinitely. These latest blunders raise basic questions about how NASA is managing the nation's space program.



THE HUBBLE TELESCOPE: NOW NASA HAS TO FIGURE OUT WHO WAS AT FAULT

NASA's predicament reflects its difficulties coping with major changes in its mission. Born as a research agency, NASA in the glory days of the Apollo program was driven by a clearly focused goal: putting a man on the moon. Today, the space program no longer captivates the public. As a result, money and brain power are scarce. And NASA's operations are different. Instead of one-shot deals—sending an astronaut into orbit, walking on the moon—the shuttle requires repeated use of the same equipment in an ongoing routine. That means NASA has to be an operational agency—a space trucking company, if you will. Maintenance and meeting launch schedules are critical. And NASA isn't handling the job well.

ANOTHER OPTION. One solution is to put NASA on a more businesslike footing. The space agency isn't supposed to post a profit, but if it operated as private companies do, it wouldn't be saddled with some of the risks of technological snafus—and it might stand a better chance of fulfilling its goals.

Consider the Hubble spacecraft. Only after the 43-foot-long telescope was sent aloft did NASA discover that one key mirror wasn't ground properly. It's unclear who was at fault, but NASA wouldn't have to worry about who should take responsibility if it had followed a growing practice in the private space industry: buying satellites "delivered in orbit." That means satellite builders guarantee performance before they receive full payment. With a long list of scientific projects in the works, NASA should explore this option.

Similarly, the agency should manage the shuttle differently. Today, operational responsibility is split between Lockheed Space Operations Co. and NASA. The Lockheed Corp. unit has a three-year, $1.6 billion contract to launch the shuttle but isn't responsible for ensuring that gear made by other vendors will work. And U.S. taxpayers alone foot the bill for failures.

NASA should consider using a single prime contractor whose job is to make sure that all parts meet specifications and are properly installed. There would have to be ample room for profits, a financial cushion against problems—and penalties for poor performance. "It is a very intriguing idea to ensure greater accountability," says Philip E. Culbertson, a former NASA general manager.

Until such issues are resolved, it makes little sense to proceed with the grandiose schemes now on the drawing board. NASA is plowing ahead with plans to build a $30 billion space station that will require at least 20 shuttle missions for construction alone. Since the shuttle remains a high-risk endeavor, big problems are inevitable. The space station is likely to become an orbiting version of the savings and loan crisis, a heavy mortgage on future taxpayers. And plans for manned voyages to the moon and to Mars early next century are simply unrealistic.

Blind reliance on the aerospace industry—given its poor track record in defense procurement—isn't a panacea. But a greater role for the private sector and a tough-minded new vision of the future may be needed as NASA again struggles to keep the U.S. space program aloft.

RMAN JACK KORSHAK: THE NORTHWESTERN ALUM FIGURES HIS PLAN WILL RAISE $732,000

ETTING JOE COLLEGE O PAY FOR CITY SERVICES

roposed tax on tuition in Evanston, Ill., is worrying educators

his salad days, Jack Korshak icked up a varsity letter wrestling or Northwestern University while ing degrees in political science and These days, it's the university Kor- wants to pin to the mat. The 75- -old alderman in Northwestern's etown of Evanston, Ill., charges that lma mater places extra burdens on services without anteing up tax ey to help offset the costs. So Kor- is crusading for a tuition tax to be d against students at Northwestern three small local colleges.

espite vigorous opposition from the ols, Korshak's proposition stands a chance of passing—and setting a edent. Evanston officials face a tfall as big as $2 million in the up- ng fiscal year, and state law re- es a balanced budget. Northwestern its 11,000 students make a particu- tempting target. Using a formula .5% of annual tuition, Korshak fig- the measure would raise $732,000 he city. For the 7,500 NU undergrad- s who will pony up $13,725 for tu- this year, it means an extra $68.63 student. Says Jack M. Siegel, Evans- s corporation counsel: "That's 12 six- s."

his latest clash between town and n is unique—so far. But the city of 00 isn't alone in seeking creative s to boost revenues. Municipalities have been scrambling ever since the federal government axed $4 billion in general revenue-sharing programs in 1986. Anxious to hold down property and other general taxes, cities around the country have turned to a plethora of user fees and excise taxes aimed at tying costs more directly to the beneficiaries of the services.

In Colorado, the state supreme court recently upheld Fort Collins' plan to charge a transportation utility fee. The city will figure the charge based on a property's footage on the street and the amount of traffic it generates. The average single-family home would pay $1 a month while a grocery might kick in $35, explains Richard Shannon, Fort Collins' utilities director. To maintain drainage pipes and dig retention basins, Cincinnati collects $4.3 million a year in storm-water utility taxes, calculated by the size and density of development of each property. And in late June, a House committee approved a bill that would permit cities to levy departure taxes of up to $3 on airplane passengers.

Evanston is squeezed more than most towns because 45% of its property is exempt from taxes

Still, not including utility taxes, these "user charges" contribute a mere 12% of the average town's municipal revenues, according to a recent survey by the National League of Cities. Douglas D. Peterson, the group's senior policy analyst, notes that property taxes bring in 34%.

Packed with churches, schools, and parks, Evanston is squeezed more than most towns, because 45% of its property is exempt from taxes. Yet with its $77.6 million budget, Evanston provides many programs that are unusual for a city its size, including running a home health care regulation-and-inspection service, a homeless shelter, and a health clinic. Particularly galling to Korshak and his supporters is that Northwestern's charter, unlike those for most nonprofit institutions, guarantees that the school be free from taxes on all of its land, even property not used for educational purposes. Nor will Northwestern make a voluntary contribution for such city services as fire and police protection, as some other schools have agreed to do.

CLOSE CALL. Evanston aldermen have defeated a tuition tax twice before. But 14 of 18 aldermen are new since the proposal was last raised in 1983, and university officials are worried. "We think the vote's certainly very close," concedes Michael C. Weston, Northwestern's general counsel. The measure has educators around the country up in arms, too. "If they do it in Evanston, other communities will look to it, too," frets Robert Rosenzweig, president of the Association of American Universities. The city council may consider the proposal as early as July 9.

In response, Northwestern has loosed a public-relations barrage. Letters mailed to hundreds of NU graduates living in Evanston spell out its position: Unlike other universities that take property off the tax rolls as they expand, Northwestern in the past 20 years has sold 14 acres that now bring the city $2.6 million in property taxes. It is Evanston's largest employer, it buys $7 million in goods and services annually from local merchants, and it has spent $9.5 million since 1983 to help the city develop a research park. University officials have taken to calling the city's aldermen at their homes to lobby against the proposal. At Northwestern's urging, a group of Illinois educators, including the presidents of the University of Illinois and De Paul University, have signed a petition denouncing the tuition-tax proposal.

It has been an impressive lobbying effort. But with money scarce, petitions, phone calls, and letters may not be nearly enough to take the former wrestler's proposal down for the count.

By Lois Therrien in Chicago

MARC POKEMPNER

In Business This Week

FORSTMANN LITTLE: WHO NEEDS JUNK?

▶ [illegible] specialist Forstmann Little [illegible] and its own partners to buy General Instrument. Real [illegible] And what it buys is the leading supplier of hardware to the cable-TV industry.

It also gives general part- [illegible] junk-bond market trembles [illegible] for the $25 billion RJR Nabisco deal. Crows Forstmann: "Real money and real intelli- [illegible] again."

CHECCHI HAS A CHAT WITH EASTERN

▶ Will Al Checchi buy Eastern [illegible] West Airlines met with the In- [illegible] discuss the possibility of swallowing Eastern whole. A [illegible] says talks with Eastern are "preliminary" and any deal is "months and months away." [illegible] be forced to buy less desir- [illegible]

A BIOTECH BABY FINDS BIG-NAME BACKING

▶ [illegible] has been turning heads for [illegible] founder George Rathmann, were looking for $25 million to fund a new Seattle-based [illegible] deal closed this week, the [illegible] William Gates, who has a long-standing interest in biotechnology. Gates retains an [illegible] subsequent offerings.

And the big names don't stop there: Former Citibank [illegible] former IBM Chairman Frank Cary have joined the board. [illegible] ments for inflammatory diseases such as arthritis.

RALPH INGERSOLL BAGS IT IN THE U.S.

▶ Newspaper publisher Ralph Ingersoll II, who folded the [illegible] in April after rolling up $30 [illegible] *New Haven Register*, and 135 weeklies or shoppers to his former partner, investment [illegible] Warburg's interest in five [illegible]

Warburg, which assumes a debt load of some $700 million, now has to bargain with bondholders over junk bonds [illegible] Community missed a July 2 [illegible] part, Ingersoll threatens to liquidate the Irish Press newspaper group if he can't get labor concessions by late July. Whatever happens in [illegible] he's planning to buy papers in Germany, France, and Italy.

IN BROOKLYN, THE DODGERS ARE STILL BUMS

Plenty of Brooklynites still haven't forgiven the late Walter O'Malley for moving their beloved Dodgers to Los Angeles after the 1957 season. So it's no surprise that many residents of New York City's most populous borough leapt to the defense of two local bar owners involved in a legal tangle with the Los Angeles Dodgers and Major League Baseball Properties, big baseball's [illegible] arm.

The dispute is over the Brooklyn Dodger bar owned by brothers Brian and Kevin Boyle. The Los Angeles team and MLB Properties want the Boyles to license the Dodger name—for only a nominal fee, they insist. The Boyles are [illegible] Brooklyn Dodger name wasn't copyrighted when they started their business. Now, the whole mess is in court. The Boyles want the case thrown out or moved to Brooklyn. Says Kevin: "We want that home-field advantage."

IT'S BACK TO BASICS FOR WESTERN UNION

▶ Just half a year ago, Western Union was hailed by an overeager publicity agent as "the turnaround story of the '90s." Since then, its only turns have been for the worse. The 149-year-old company has been crushed by the 19% interest rates on junk bonds that were sold through Drexel Burnham Lambert.

Striving to stay out of bankruptcy court, Western Union announced on July [illegible] that it will sell its shrinking [illegible] and its market-leading electronic-mail operation to [illegible] for $[illegible] million. If the deal goes through, Western Union will still have telegrams, mailgrams, and a successful money-transfer business. But, says John [illegible] of broker Raymond James & Associates, "Western Union essentially is finished as a telecommunications company."

LEASEWAY GETS A LIGHTER DEBT LOAD

▶ Leaseway Transportation, the Cleveland-based trucker that overleveraged itself in a 1987 buyout, has finally negotiated a tentative restructuring of its finances. Under the plan, Leaseway would pay off much of its bank debt over the next three years in return for crucial letters of credit from its lenders. Junk-bond holders, who haven't received interest owed since Feb. 1, would get [illegible] cash interest instead of the 13¼% originally due them. The agreement still needs the official approval of banks and bondholders. ■

EDITED BY STEPHEN H. WILDSTROM

OW BUSH'S TAX FLIP OULD FLOP FOR THE DEMOCRATS

Democrats are all smiles these days, who can blame hem? For the first time since Michael Dukakis' disastrous 988 defeat, they see sunshine on the horizon. President n's tax flip-flop has divided the GOP and left its congressio- candidates demoralized. "The political pendulum is swing- our way," Democratic National Committee Chairman Ron- H. Brown told party leaders on June 30 in Portland, Ore. a glance around the hall showed that some of the leaders ally seemed to believe it.

here's no question that Bush's Presidency has entered a cult phase. But the Democrats' joy ks a sobering fact: The party has a way to go before it can convert n's problems into a ticket to the te House.

D YOU SO.' The Democrats have ample rtunity to blow the issue in the te House-Capitol Hill budget talks. danger is they'll insist on big tax s at a time when the public believes of money can be saved in spending Moreover, any public gloating over fact that the GOP has finally come nd to the prophetic position of Wal- Mondale only reminds voters why they went for Reagan Bush. "Democrats always want to run on that issue of told you so,' and it never works," says political scientist am Schneider of the American Enterprise Institute.

s the year unfolds, Democrats will appeal to the middle s by painting Republicans as the promoters of greed. The t line of attack: Blame Bush's deregulatory fervor for the ngs and loan scandal. This, too, could backfire. S&L-related rities have already done in several Democratic House lead- including Speaker Jim Wright (Tex.). Four of the "Keating" senators being probed for intervention in S&L regulation Democrats. And many analysts believe the thrift scandal hurt incumbents, most of whom are Democrats.

side from the problems with their message, Democrats have a distinct lack of credible message-bearers. So far, the most prominent national Democrat to take up the attack on Bush is New York Governor Mario M. Cuomo, whose perpetual coyness about his Presidential ambitions grates on many.

CUOMO: POINT MAN FOR THE PARTY

Democratic strategists hope that a steady assault on the "unfairness" of Reagan-Bush policies will lure back the millions of onetime Democrats who haven't voted for the party's Presidential candidate since 1976. Trouble is, a commitment to tax equality may not be powerful enough to overcome the antipathy of "Reagan Democrats" to Democratic stands on crime, obscenity, and family values. "Every time we play rich-poor politics, we fail," laments one Democratic operative.

Republican strategists are moaning that the President's reversal on taxes has left the GOP without an issue that clearly defines the party. That may be true. But the GOP's problems pale in comparison with those of the Democrats. The party's machinery remains more firmly than ever in the hands of liberal activists. Its latest round of nominating-rule changes has made it easier for Jesse Jackson—or another candidate on the left—to win more delegates in primaries. And even if Bush stumbles badly, the party has a dearth of fresh and attractive faces to carry its standard in 1992.

That's why some of the clearer-eyed party officials can take only limited comfort from Chairman Brown's cheerleading. True, Bush is suffering the worst agonies of his Presidency, and the Democrats are unified in their enjoyment of the spectacle. But given the abundance of opportunities the Democrats have to fumble the tax issue, wiser heads among them aren't giving in to euphoria. "We may not win the White House in 1992," says Ohio's James Ruvolo, head of the Association of Democratic State Chairs. "But at least we are all singing from the same hymnbook."

By Douglas Harbrecht in Portland, Ore

ITAL WRAPUP

STICE

s there an academic job in Attorney General Richard L. Thornburgh's fu- e? Officials of the University of tsburgh would like to think so. ey're looking for a replacement for iring Chancellor Wesley Posvar, a ture at the school since 1967. Pitt stees have spread the word that y would like to hire Thornburgh, a t law school alumnus and former S. attorney for western Pennsylva- . Although Thornburgh has had a gh ride in his two years as Attor- y General, aides say he has no plans leave. Says Justice Dept. spokesman niel Eramian: "He has had no talks with the university, he has not authorized anyone to talk to the university for him, and he's not interested."

PEOPLE

Richard Y. Roberts, a former top aide to Senator Richard C. Shelby (D-Ala.), appears to be the White House choice for a vacant Democratic seat on the Securities & Exchange Commission. Agency-watchers see the appointment of Roberts, 39, partly as a White House reward for Shelby, who has frequently crossed party lines to support Administration positions. Attorney Roberts is expected to fill the SEC slot vacated by the resignation of Joseph A. Grundfest earlier this year.

POLITICS

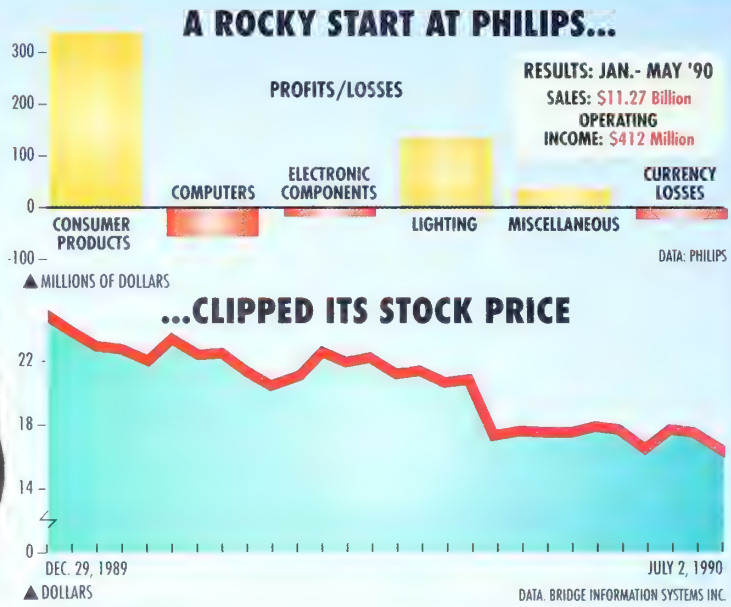
Maybe it's time for 1970s nostalgia. Former California Governor Edmund G. (Jerry) Brown Jr., recently elected chairman of the state Democratic Party, is meditating on another run for public office. "I don't intend to be an anonymous party functionary for the rest of my life," says Brown, once known as "Governor Moonbeam." Should Democratic Senator Alan Cranston retire in 1992, or should Cranston's current ethics problems leave him badly wounded, Brown, who has been out of the limelight since leaving the statehouse in 1983, might make a run for the Senate seat.

A WOULD-BE WORLD-BEATER TAKES A BEATING

Philips' billion-dollar loss may not be the last of the bad news

Jan D. Timmer, who earned a turnaround reputation by blitzing Europe with smart new Philips consumer electronics products, was impassive. Moments before, the new CEO had forecast Philips' biggest annual loss ever—$1.06 billion—before shareholders in the headquarters town of Eindhoven in south Holland. As the stunned Dutch gaped from the bleachers in a town sports center, one angry burgher found his voice. "The entire board should have quit," he declared.

TIMMER: NOT CUTTING ENOUGH?



Bad news had been in the air since mid-May, when the board forced the resignation of CEO Cornelis J. Van der Klugt. But no one expected a megaloss. Nor was anyone impressed with Timmer's plan to save Europe's second-largest electronics company. When Timmer announced that he would trim the worldwide work force of 293,000 by just 10,000 and launch a $1.4 billion restructuring, investors reacted by knocking the share price down 7% on the Amsterdam exchange. Although the 57-year-old Timmer is noted for making tough decisions, there's growing doubt that even this company veteran can win against Philips' vast headquarters bureaucracy. "The culture and huge central staff in Eindhoven remain untouched," complains Bill Coleman, an analyst at James Capel & Co. in London.

Nearly half the Dutch company is in trouble. While Philips was coming back in CD players, TVs, and VCRs, the computer and semiconductor divisions, which make up 45% of its $30.4 billion 1989 sales, were floundering. Philips will take a $718 million write-off on its inventory of unsold computers and chips, scrapping thousands of minicomputers made to compete with U.S. and Japanese rivals. While the computer unit produced minis, its bureaucrats didn't realize customers were switching to PCs. Philips got into trouble in chips the same way, targeting the high-volume end of the market, where sales are least profitable.

Philips' plan to become a high-tech player in the new Europe is also in serious trouble. Timmer's former bailiwick, consumer electronics, which accounts for 40% of sales, is the only area where the company has invested big that is performing well. If Timmer scraps or downsizes computers and chips, as seems likely, the estimated $1 billion-plus in Dutch and European subsidies that went to Philips as a bulwark against Japanese competition may have been wasted.

Timmer, a baker's son who couldn't afford college, could surprise his critics, but he'll need to make bigger waves. Frans van Schaik, an analyst with Barclays Bank PLC in Amsterdam, estimates that 40,000 to 50,000 jobs need to be slashed, almost unthinkable in Europe, where firing is protracted and costly. Just to cut 10,000 employees, for example, will take up to 18 months and cost about $700 million.

Timmer also hasn't offered a convincing plan to deal with the mess in computers, beyond saying that all divisions will have to make money or face the ax. Besides the debacle in minis, Philips has difficulties in PCs, in part because it has less than 1% of the world market in what has become a commodity business. Philips also has big distribution problems. It now sells roughly 50% of its output through costly direct sales, compared with as little as 20% for some competitors. But shifting to dealers will be tough as rivals such as IBM, Compaq, and Groupe Bull (page 154) go after the same ones with lucrative packages.

e prospects for chips aren't good, er. Philips' world market share ed last year to 3% from 3.4% in 1988 at sales of $1.7 billion. Philips is set taying in the business because of ising products such as HDTV, which consume as much as $200 to $300 h of microprocessors per unit. "Sell-off the components business would rategic suicide," says Bipin Parmor, taquest Inc. analyst.

t Philips' low-end product mix has t big losses. Its R&D approach has d to cover all the bets without fo-g on any of them enough," says M. Marcum, president of the Euro- Institute of Technology. So far, ps has failed to capitalize on its promising technology: computer ories called SRAMs, developed in a venture with Siemens in the 1980s.

UP.' Still, Philips is not about to pear. Its real estate alone is worth billion, more than the company's billion market value. It's also widely ved that Timmer took the biggest possible to get Philips ready for a around and that he intends to be e aggressive than the feeble restruc-g plan presented to shareholders. so, critics doubt he will be able to trate to the heart of the problem. say that Timmer and current man-nent are tainted by failure and that bringing in an outsider would sig- commitment to real change.

traditional Philips tactic for dealing foreign competition, trade barriers, so in jeopardy. The company may it harder to win government protec- from its Japanese and Korean ri- despite its Europe-wide political . "The European Community is fed vith calls for protection every time e's some competition from abroad," Arjen Los, an analyst at County West Securities Ltd. in London

ilips' problems also won't help those believe Europe's costly attempt to e a comeback in high tech needs e government support. The Dutch pany's ills show that despite their s in recent years, the Europeans 't producing enough computers and conductors to compete with U. S. Far Eastern producers. "We're all small to fight against the Japanese," Philippe Geyres, head of strategic ning at France's SGS-Thomson.

some ways, the problems Philips is disclosing are similar to those all ope's high-tech giants face. They n more selective investments and h closer cooperation, if not outright gers, may be needed to survive Eu- 1992. The problem is that it's not r Philips has gotten that message.

y Jonathan Kapstein in Eindhoven, the erlands, with Jonathan Levine in Par-nd bureau reports

GERMANY

EYES WEST: CHILDREN PEER INTO A STOCKED EAST BERLIN SHOP

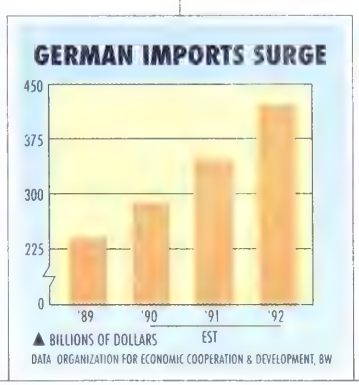
ON YOUR MARK, GET SET... SELL TO GERMANY

A unified nation will be a huge importer of foreign goods

Dutch tomatoes. French Brie. African bananas. West German washing machines, and eight brands of Bavarian beer. Suddenly, stores and showrooms were bursting with goods for the great German shopping spree. In a paved-over area where the Berlin Wall stood, vendors hawked anything they could push, pull, or truck.

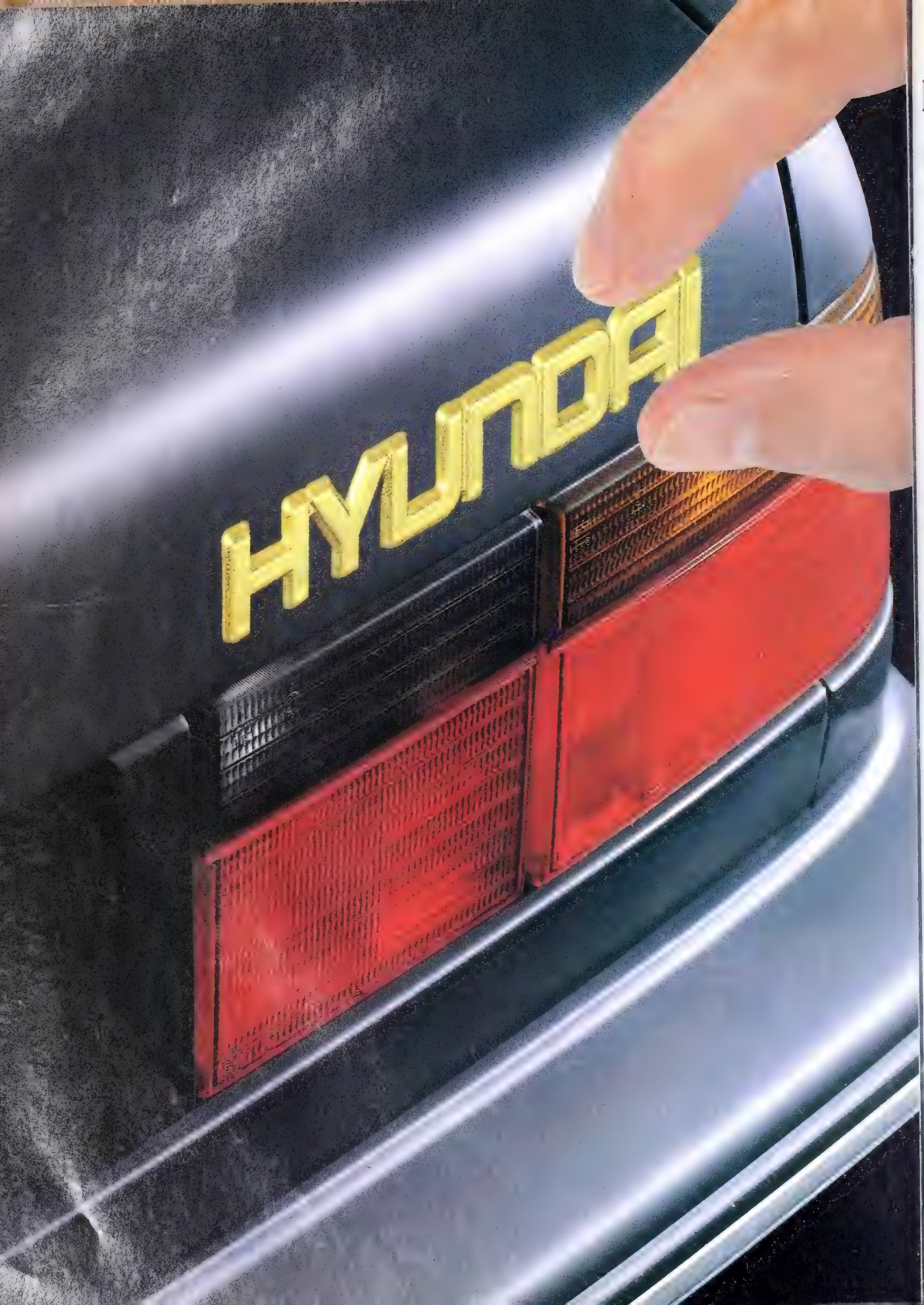
The first shot of cash reached East Germans on July 1, when $2.7 billion worth of West German marks passed into East German hands in exchange for their near-worthless currency. All told, some $37 billion in Deutschemarks will find their way into the wallets and bank accounts of East Germans, and a lot is already being spent. At a new Deutsche Bank branch on East Berlin's Alexanderplatz, an impatient crowd chanted, "I want my money" as the slow process of withdrawals began.

The explosion of cash is turning both Germanys into the world's fastest-growing importers. With the West German economy growing at 4%, and factories working at capacity, foreign goods are pouring into Europe's economic powerhouse. West Germans are likely to boost imports by 20% this year, to $300 billion, and after full unification of the Germanys takes place in December, imports could surge even faster (chart). That's leading some economists to predict that by 1993, a united Germany's current-account surplus could fall to half of the $62 billion recorded in 1989.



RISING APPETITE. Many U. S. exporters are gearing up for a surge in German orders. Caterpillar Inc.'s yellow earthmovers have been heading to German ports for months in anticipation of a 30% hike in sales that the company expects as reconstruction takes hold. Ford Motor Co. plans to start selling Germans Michigan-made Probe coupes next year, as well as the Escorts and Vectras it makes in West Germany and Belgium. John E. Hardiman, CEO of Ford's German unit, thinks he may sell 10,000 of the sporty Probes in 1990 alone.

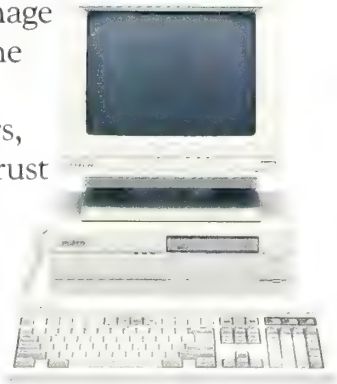
Ford has lined up 120 agencies in East Germany to handle sales, while Japan's Nissan Motor Co. has opened a 36-dealer East German network to sell cars and vans from plants in Spain, Britain, and Japan. France's Renault plans to open three times as many East German auto dealers as Nissan, and claims it already has 8,000 orders, most for


HYUNDAI

IF YOU THINK WE ONLY MAKE CARS, YOU'RE 21% CORRECT.

You probably think of Hyundai as the world-class maker of affordable high quality automobiles. And you're right of course. But Hyundai Motor represents only about 21% of the Hyundai Business Group. Shipbuilding, electronics, general construction, machinery and heavy equipment, rolling stock and petrochemicals are all key components of the Hyundai group.

Hyundai started as a small civil contractor 43 years ago, and today we've over US$20 billion worth of overseas engineering and construction experience.
Hyundai also built and operates a dockyard with the largest ship tonnage output in the world and has won awards for building the World's Best Ship for seven consecutive years.
Those who are involved with computers, semiconductors, and telecommunications have also come to know and trust Hyundai.



In fact, corporate depth and diversity like this is one reason why Hyundai has become such a symbol of Korea's economic success.
If you think Hyundai is the right partner for you, join with us in Korea or around the world as we bring the challenge of tomorrow closer to today.

HYUNDAI

K.P.O. Box 92 Seoul, Korea Tel: (02)746-1873
Tlx: K23175/7 Fax: (02)741-2341

its hot-selling $15,000 Renault 19s. Renault expects total sales to the two Germanys to rise 10% this year, to 100,000.

West German and foreign manufacturers are also stepping up sales to the East from factories on West German soil. That increase is pulling in imports of raw materials and components and helping sales from German-owned factories abroad. One typical exporter, dental-equipment maker Pelton & Crane Co., a Siemens unit based in Charlotte, N. C., is marketing equipment sterilizers to West Germans and plans to expand sales to the East. Siemens bought the company five years ago to distribute German dental gear. Now, "we're beginning to export back," says Hans Nahme, a P&C international sales manager.

Even more opportunities may lie in meeting long-pent-up demands of East German consumers. British conglomerate Polly Peck International PLC expects to ship $15 million in bananas and other fruit to East Germany this year, and plans on tripling sales within two years. Bébé Confort, the leading French exporter of children's furniture, recently sent Chairman Gérald Bory to cut a deal to distribute strollers, playpens, and baby bottles in Eastern Europe.

The German import surge will mean growth for the rest of Europe, which already supplies two-thirds of Germany's foreign goods. Peter Buomberger, Union Bank of Switzerland's chief economist, estimates new exports could add as much as half a percentage point to the Netherlands' economic-growth rate and up to 0.25% in France, Britain, Italy, and Switzerland. Even the U. S. may see its $8 billion trade deficit with West Germany turn into a surplus. "Germany is our economic locomotive," says Francesco Micheli, president of the Italian merchant bank Finarte. After two decades of helping pull Europe along, the freight train named West Germany is now hauling with two engines.

By Blanca Riemer in Paris, with Igor Reichlin in East Berlin and bureau reports

JAPAN

NOW, JAPAN'S ADVERTISERS ARE NUTS ABOUT NATURE

Companies are cashing in on a rising concern for the environment

Japan's name is mud among environmentalists, who accuse the Japanese of eco-sins ranging from tropical deforestation and driftnet fishing to insensitivity toward endangered species. But you wouldn't know it at The Earth bar and restaurant near the Ginza in Tokyo. That's the new eatery with a tropical motif where young cognoscenti are flocking to soak up Japan's trendiest new beer—also called The Earth—from cans and bottles emblazoned with the slogan, "Suntory is thinking about the earth."

Suntory Ltd., the food and beverage giant, readily admits to exploiting Japan's current fascination with the environment, and it is far from alone. Dozens of Japanese companies are latching onto ecology as a potent marketing theme for everything from clothing to mutual funds. "They see a good business chance in this, especially in tandem with building a strong corporate identity," says Shigeyuki Hashizume, director of the quasi-governmental Japan Environment Assn. (JEA).

POP-TOP PIONEER. In its latest annual survey of advertisers, the Japan Advertising Council reports that respondents overwhelmingly chose "nature preservation" as the most important ad-campaign theme of the year. Two years ago, it ranked 12th. Japanese companies are rushing to win permission to use the JEA's "Ecomark." Since last February, the association has awarded its seal of approval to 513 products, including The Earth, one of the first beverages in Japan to be packaged in cans with stay-on rather than pull-off tabs.

Just how much of the environmental craze is real is hard to know. On the surface at least, the popular mood is changing fast, spurred by the likes of the recent 20th anniversary of Earth Day. Local environmental groups are increasingly vocal, and Japan's mass media brim with reports on global warming and the ozone layer. "In terms of consciousness, Japan is finally catching up," says Yuta Harago, a consultant to World Wide Fund For Nature in Tokyo.

SUNTORY'S EARTH: SUDS WITH A SOCIAL CONSCIENCE

There's no question that the environment sells. Seeking to divine what beers to develop for the 1990s, Suntory turned loose a five-member team of thirty-something staffers to ferret out emerging trends. "What kept popping up was 'earth consciousness,'" says Tadao Hashimoto, general manager for planning in Suntory's beer division. The result, introduced in April, is a heavier, stronger-tasting beer in a beige can, all meant to evoke the fruits of the earth.

Within a week of each other in April, two major consumer-credit companies also announced Japan's first "nature preservation" credit cards, 0.5% of whose charges go to a conservation group. One company, Orient Corp., linked up with the Wild Bird Society of Japan to issue cards emblazoned with a vivid painting of a bird. Orient's product is called the "We love birds" card.

SCRAPSTICKS. The retail and fashion worlds aren't being left behind. Such top department stores as Takashimaya and Mitsukoshi have opened "earth-friendly" corners selling environmentally sound products. Several supermarkets now sell disposable chopsticks made from wood scraps or bamboo instead of lumber from Southeast Asia or the U. S. In apparel, the latest vogue is "eco-fashion," boasting tropical prints and natural fabrics.

Yet Fashion Coordinator Mutsumi Saito at Seibu Department Stores Ltd. notes that few stores aggressively promote eco-fashion for fear that activists will accuse them of hypocrisy. Indeed, some patrons of The Earth restaurant observe that it uses nonrecycled paper plates, napkins, and menus. And if Suntory really cared about the environment, other critics argue, it would use fewer cans and more bottles, which take less energy to make. To their minds, it will take more than The Earth beer to save the earth.

By Robert Neff in Tokyo

© 1990 DHL Airways, Inc.

REDUCE THE FEDERAL DEFICIT OVERNIGHT.

From New York to Europe alone, there are 39 places we ship overnight. And Federal Express takes days.

In fact, we're faster than Federal to 127 countries. And we go to more countries around the world than Federal Express or UPS. Almost 190, at last count.

Seems some deficits are easier to reduce than others. For immediate pickup, dial 1-800-CALL-DHL. Or drop off your package at any participating Mail Boxes Etc.

FROM	TO	DHL	FEDERAL
NEW YORK	ROME, ITALY	1	2
CHICAGO	LONDON, ENGLAND	1	2
NEW YORK	GENEVA, SWITZERLAND	1	2
MIAMI	RIO DE JANEIRO, BRAZIL	1	3
NEW YORK	MILAN, ITALY	1	2
NEW YORK	BRUSSELS, BELGIUM	1	2
CHICAGO	CAMBRIDGE, ENGLAND	1	2
MIAMI	TRINIDAD, BOLIVIA	1	5
NEW YORK	MANNHEIM, W. GERMANY	1	3

A partial listing of the 187 countries we serve. Transit times in days.

MAIL BOXES ETC. *Now official DHL Drop-Off Centers.*

DHL WORLDWIDE EXPRESS

FASTER TO MORE OF THE WORLD

Introducing the laser printer to buy if price is the first thing you look at,

or the last.

	The New IBM LaserPrinter E	HP LaserJet IIP
Speed	✓ up to 5 ppm	up to 4 ppm
Speed upgrade option	✓ up to 10 ppm	No
Adobe PostScript option	Yes	Yes
Printer emulation	✓ IBM, HP PCL	HP PCL
Std. plotter emulation	✓ Yes	No
Font card slots	✓ 2	1
Std. input paper tray capacity	✓ 200	50
Std. output paper tray capacity	✓ 100	50
Opt. sec. input paper tray capacity	✓ 500	250
Opt. envelope tray capacity	✓ 75	20
List price*	✓ $1495	$1495

*Dealer prices will vary

Any way you look at it, the new IBM LaserPrinter E gives you more for your money than any other laser printer in its price range.

For the same price as the HP LaserJet IIP, the IBM LaserPrinter E gives you all the advantages of laser quality output 25% faster, with four times the paper capacity, and twice the number of font slots.

Plus the IBM LaserPrinter E is unique in its price range because it lets you customize your printer's speed and features to meet your exact needs. And that makes it the only affordable laser printer that lets you buy now and grow later.

For example, if you decide you want faster printing, you can double the LaserPrinter E's speed. Or if your software requires Adobe PostScript language, it can give you that creative flexibility, too.

So whether your first requirement is price, performance or flexibility, the new IBM LaserPrinter E should be at the top of your shopping list. See it today by calling 1 800 IBM-2468, ext. 982, for the name of your nearest IBM Authorized Dealer.

The new IBM LaserPrinter E. Suddenly, nothing else measures up.

IBM

EDITED BY JOHN PEARSON

ORBACHEV WILL SOON MAKE CASTRO IORE OF AN ISLAND

attered by economic troubles at home, Mikhail Gorbachev intends to turn off the spigot of Soviet aid and trade subsidies, worth upwards of $3 billion annually, have kept Cuba's Marxist economy afloat for 30 years. phaseout, starting next year, will severely squeeze the d's rickety economy, which is already hurt by disruptions ade with Eastern Europe. Cuban workers' bitterness over deepening hardships may underlie a rash of recent indus- breakdowns. The rising tensions could al Fidel Castro's worst political crisis e taking power in 1959.

orbachev raised the ante for the Cubans te May when he sent Soviet officials to ni to talk with exiles including Jorge Mas osa, chairman of the Cuban American Nal Foundation. The conservative lobby has ial clout in Washington, and Gorbachev es to soften its opposition to Bush Admintion efforts to expand U. S.-Soviet ecoic ties. Gorbachev isn't proposing to aban- Castro, whom many communists revere a revolutionary hero. But the Soviets ld end subsidies for Cuba while still mainng political and military ties. "Moscow zes the political strength Cuban exiles e," says Andrei Kortunov, a Soviet expert Latin America.

CUBANS DEMONSTRATE IN MIAMI

GAINING CHIP. Up to now, Castro has vowed to keep Cuba a ion of orthodox Marxism. But last March, Cuban Armed es Minister Raúl Castro promised reforms, from direct tions of the National Assembly to allowing Christians in ernment. In response, Gustavo Arcos Bergnes, a promi- Castro opponent and former political prisoner who has ed in Havana, called for a "dialogue" with Castro by idents inside Cuba and exiles. Arcos' overture was denced as "treason" by Miami hardliners who hope that U. S. sure on Moscow to withdraw from Cuba will leave Castro opple like Romania's Nicolae Ceausescu. But Arcos' call strengthened those exiles who believe a bargain could be struck with Castro to allow more freedom in Cuba in exchange for easing of the U. S. economic embargo. "Was [Lech] Walesa a traitor when he talked with [Wojciech] Jaruzelski?" asks Ramón Cernuda, a Miami publisher, referring to Poland's Solidarity leader and the head of the former Communist regime.

U. S.-Cuban strains are still far too great for basic political talks. One source of tension is TV Martí, a U. S. government-run station that broadcasts to Cuba. A more crucial issue, says a senior State Dept. official, is the continuing flow of arms from Cuba to Salvador's Marxist guerrillas. The Soviets have barred the Cubans from shipping weapons to the rebels from Soviet military aid, which amounts to more than $1 billion, but they say they can't prevent Castro from supplying arms from other sources. Nevertheless, the U. S. is urging the Russians to time cuts in economic aid in a way that would convince Castro to end the arms flow to the rebels. Such a move would make it easier for Bush to join Western Europeans in aiding the Soviet Union.

According to Piotr T. Kondrashov, a Latin American policy adviser in the Soviet Foreign Affairs Ministry, Moscow plans to denominate Cuban-Soviet trade in hard currency in 1991 and phase out subsidies over several years by shifting to world prices (page 29). But in a foreign-aid debate scheduled for next fall, the Soviet Parliament may call for a speedup in that timetable after taking a critical look at handouts to Cuba and other clients. Subsidies to Cuba are likely to be even less popular among individual Soviet republics, which are demanding more control over revenues and greater independence in foreign policy. To adjust his regime to these harsh prospects, Castro may have less time than he thinks.

By Antonio N. Fins in Miami, with Rose Brady in Moscow, Ruth Pearson at the U. N., and Bill Javetski in Washington

BAL WRAPUP

ALY

After wallowing in red ink for a decade, Italy's state-dominated el industry is making a spectacular neback. In the latest move, statened Ilva and privately owned Falck e swapping assets to make their optations more efficient. The deal culmites a two-year turnaround by Romesed Ilva, which earned $170 million t year on sales of $8.6 billion after ing up $10 billion in debt from 1977 1987. Italian politicians, alarmed by e growing threat to Italy's industry om European rivals, kept hands off ile Ilva overhauled itself.

The deal with Milan-based Falck helps stave off inroads by France's state-owned Usinor-Sacilor, which also wanted to forge links with Falck. Ilva will inject $250 million for a 5% share in Falck, which turned a marginal $28 million profit on $700 million in sales last year. Next year, Ilva plans a public offering to partly privatize itself.

PERU

President-elect Alberto Fujimori has influential connections outside Peru—and he will need all the outside help he can get to cope with Peru's problems, from inflation to guerrillas. During a visit by Fujimori to the U. N., Secretary General Javier Pérez de Cuellar, himself a Peruvian, arranged a meeting with the heads of the World Bank, the International Monetary Fund, and the Inter-American Development Bank. The aim is to start bringing Peru back into the international financial system after years of default by Lima on its $17 billion foreign debt.

Fujimori went on to Tokyo, meeting with the Emperor, top politicians, and businessmen. Prime Minister Toshiki Kaifu promised to send economic experts to help Peru, but officials took pains to avoid the impression that Japan will favor Fujimori because he is the first ethnic Japanese to become a foreign head of state. While skilled at opening doors, Fujimori is finding that opening Japanese purses is trickier.

THE STAND ON OUR HEAD COPIER GUARANTEE FROM KODAK

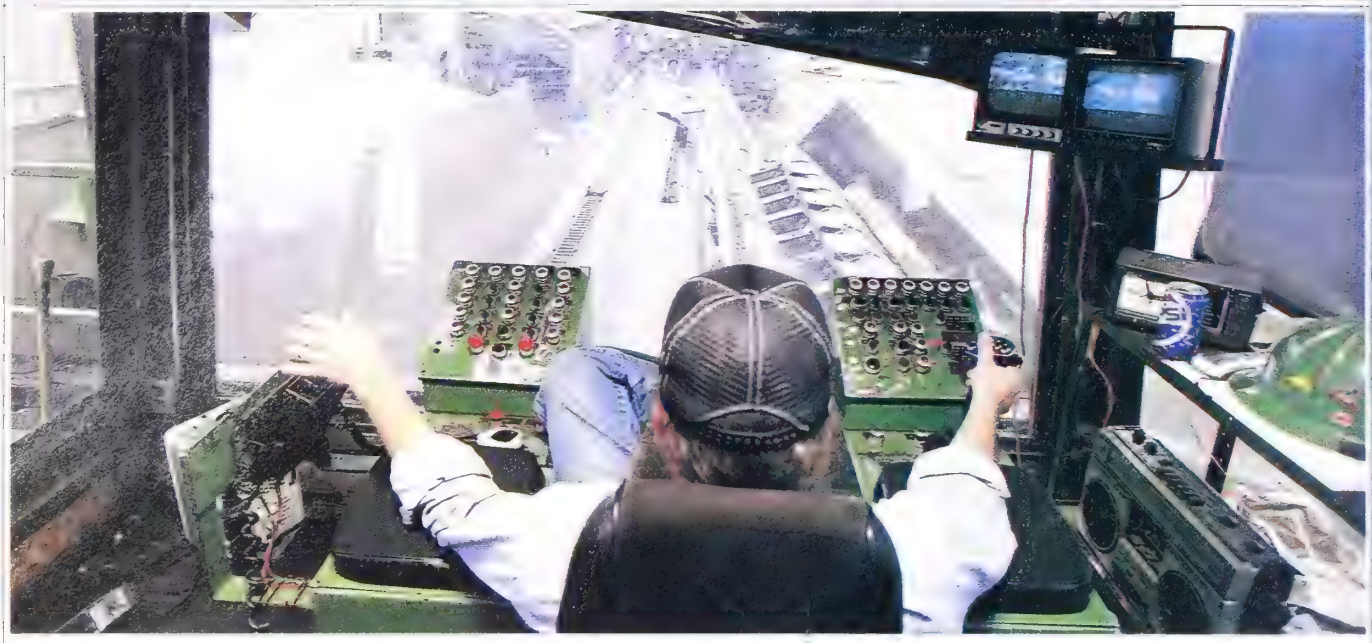
You'll be totally satisfied with the reliability and service of your Kodak copiers, and we'll do whatever it takes to keep you that way. That's a guarantee.

If a headstand is what it takes to make you a totally satisfied Kodak copier customer, a headstand is what you'll get. But you're more likely to find Kodak people with both feet on the ground, delivering the service and support they're famous for. Which is a large part of the reason why Kodak copiers win awards for reliability, and Kodak wins awards for overall customer satisfaction, year after year.

Some of us are better than others at standing on our heads, but we're all experts when it comes to satisfying customers. For details call: 1 800 255-3434, Ext. 156.

Kodak copiers. Ask any customer.

stman Kodak Company, 1990



A WEYERHAEUSER MILL IN TACOMA, WASH.: THE COMPANY'S $1.6 BILLION IN EXPORT BUSINESS MAY BE AT RISK

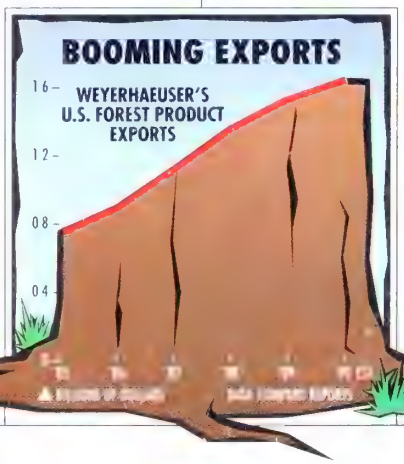
WEYERHAEUSER'S EXPORTS: AN ENDANGERED SPECIES?

A wider ban on overseas log sales would imperil its turnaround

It's a graceful, shy bird—and lately a media celebrity. The spotted owl of the Pacific Northwest has taken center stage in a nasty row between environmentalists and the forest-products industry over the fate of the nation's pristine forest lands. And it's a battle that hasn't gone well for the timber business. On June 22, the Bush Administration listed the owl as an endangered species, opening the way for dramatically lower limits on the harvest of ancient trees from the nation's public forest land.

But at Weyerhaeuser Corp., it's not the owl that keeps executives awake at night. As part of their crusade to save the nation's dwindling pristine forest land, environmentalists also want to see the U. S. clamp down on exports of logs. At stake is roughly $1.6 billion in export business for Weyerhaeuser, or 16% of total sales. That's troubling to the folks in Federal Way, Wash. A blow to exports would hurt Weyerhaeuser at a most inopportune time. Weyerhaeuser President John W. Creighton Jr. is on a crusade of his own to boost the company's lackluster earnings performance, one of the worst in the industry. He is sorting through Weyerhaeuser's potpourri of holdings and selling off unprofitable or unrelated businesses.

TOTAL BAN. Creighton is heir apparent to Chairman and CEO George H. Weyerhaeuser, who turns 65 next year. The great grandson of the founder and a Yale University classmate of George Bush, Weyerhaeuser deals mostly with public-policy issues. It has fallen to Creighton, 57, to fashion a turnaround at the timber-products goliath. And he's thinking big: Creighton is shooting to add $700 million, or 82%, to Weyerhaeuser's pretax operating earnings by 1995. Even Creighton concedes that will take some doing. "This place is like a supertanker," he says. "You can be pulling on the wheel for a long time before the ship starts to turn."



Whether the ship turns at all may well hinge on the emerging debate over U. S. log exports. For now, Weyerhaeuser has little to fear from cutbacks on harvests of older trees on public lands, which the Bush Administration isn't expected to spell out in detail until September. Only a tiny portion of the company's timber would be affected. Indeed, Weyerhaeuser may even be a beneficiary of cuts. The company is the largest private timber owner in the West. As the government restricts tree harvests on public lands in the Northwest, prices for Weyerhaeuser's timber are shooting up like saplings.

However, any appreciation from the spotted owl decision could be wiped out if environmentalists get their way on the export issue. They have forged an unlikely alliance with sawmill owners, who make their living splitting logs, to demand outright caps or some form of tax on timber exports.

The hope is to keep more domestic timber flowing into U. S. mills. Right now, there's a ban on exporting logs from federal lands only. But Congress is considering stricter caps on log exports from state preserves, too. That would come on top of existing bans already passed by some states. And, still more trou-

; for Weyerhaeuser, some environtalists have even set their sights on ing exports from private lands. Says Pankowski, executive director of the hington Environmental Council, a tion of citizen's groups: "Unless a were to be applied to all holdings, haven't really gained much."

eyerhaeuser has long had a complex ionship with environmentalists. The pany pioneered tree farming, spends ily on research and development, supports in-house wildlife experts. n so, Weyerhaeuser's use of clearng—or removing whole sections of st at a time—hasn't exactly ened it to activists. Nor have Weyerser's practices of burning debris using herbicides to clear out erbrush.

B BAG. Wall Street isn't much happi-The company's stock, now at around s trading at less than half of the kup value, reckons Dain Bosworth which says Weyerhaeuser's 5.7 milacres of timber alone are worth at $30 a share. Its 8.5% return on ty last year trailed the industry's average.

nd after a stiff $497 million restrucng write-off in 1989, earnings fell to a scant $341 million, on sales of 1 billion. This year won't be a stellar either, thanks to falling pulp and r prices. Standard & Poor's Corp. res Weyerhaeuser will earn only t $530 million, well below its 1988 of $566 million.

art of the problem is that Weyerser has invested heavily to build high-tech mills, rather than buy less ly existing capacity. And a series of rsification moves during the 1980s left Weyerhaeuser looking like ething of a grab bag of loosely relatusinesses. "It's not sufficiently fo-d in terms of allocation of resources management attention," gripes Saul ri, managing director of Piper, Jaf- & Hopwood in Minneapolis, which ntly downgraded their rating on erhaeuser's stock.

fix things, Creighton is streamlin-Since last year, he has sold units ed at a total of $165 million, includbusinesses in milk cartons, gypsum board, paneling, garden nurseries, building materials. Still, Yaari and e other analysts would like him to all or part of Weyerhaeuser's strugg financial-services unit and so-so estate development group, which he t up after joining the company in).

reighton is also yanking managers y from their posts for months at a e to work with McKinsey & Co. conants on strategic planning for verhaeuser's 20-odd businesses. A mer tax attorney, Creighton joined the company in 1970 as general manager of its real estate business. He had no experience in wood products before he was tapped as president in 1988. But that could be a plus. Unburdened by family ties, he may be more hard-nosed about evaluating Weyerhaeuser's business mix.

Creighton admits that his turnaround push is taking longer than he thought it would and says it has given him a case of "humble-itis." So when will Creighton's changes start to take hold? "It's too early," he insists. "We're just planting the seeds for change." If environmentalists and sawmill owners get their way in the 1990s, though, those seeds may never have a chance to grow.

By Dori Jones Yang in Federal Way, Wash.

WHERE WEYERHAEUSER IS DOING BETTER THAN MOTHER NATURE

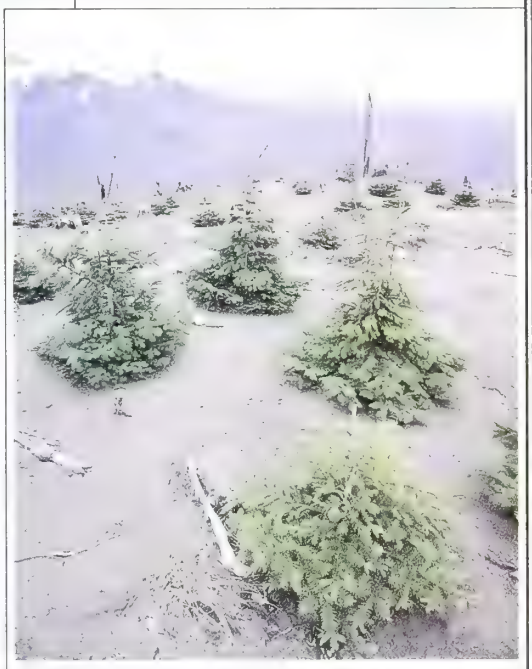
A helicopter sweeps around the lava dome inside the crater of Mt. St. Helens, the Washington state volcano that spewed death and destruction during its 1980 eruption. Then it heads over to a ridge that divides two contrasting worlds. On the side preserved by the U.S. government, trees are scattered like matchsticks along a barren landscape. On the other, waist-high firs planted by Weyerhaeuser Co. poke their heads above the stumps.

It's a comeback tale Weyerhaeuser loves to tell. When Mt. St. Helens blew its top, Weyerhaeuser lost more trees than any other company—about 45% of the 150,000 acres destroyed. Many figured it would take decades before anything substantial emerged from under the ash. But Weyerhaeuser has planted 18.4 million seedlings since 1981, and some have grown as high as 25 feet. "Nature is tremendously resilient," says Ross Graham, land-use supervisor of Weyerhaeuser's land and timber group.

CLEAR-CUT CASE? In fact, as its success following the Mt. St. Helens eruption underscores, Weyerhaeuser believes it can rejuvenate a forest faster than Mother Nature. And it's a message the company wants to get out. Not far from the eruption site, on lands bought by Frederick Weyerhaeuser back in 1900, the company is now harvesting trees it planted in the 1930s—and replanting a third generation. Its forests are uniform green rows of straight Douglas firs with no leafy trees or rotting logs.

Still, Weyerhaeuser has been criticized for its logging methods, such as clear-cutting huge sections of forests and using fire and herbicides to remove foliage. Some environmentalists prefer more selective logging, arguing that slash-and-burn methods disrupt the habitat for wildlife. Another argument: Clear-cutting leaves ugly swatches of denuded mountain slope.

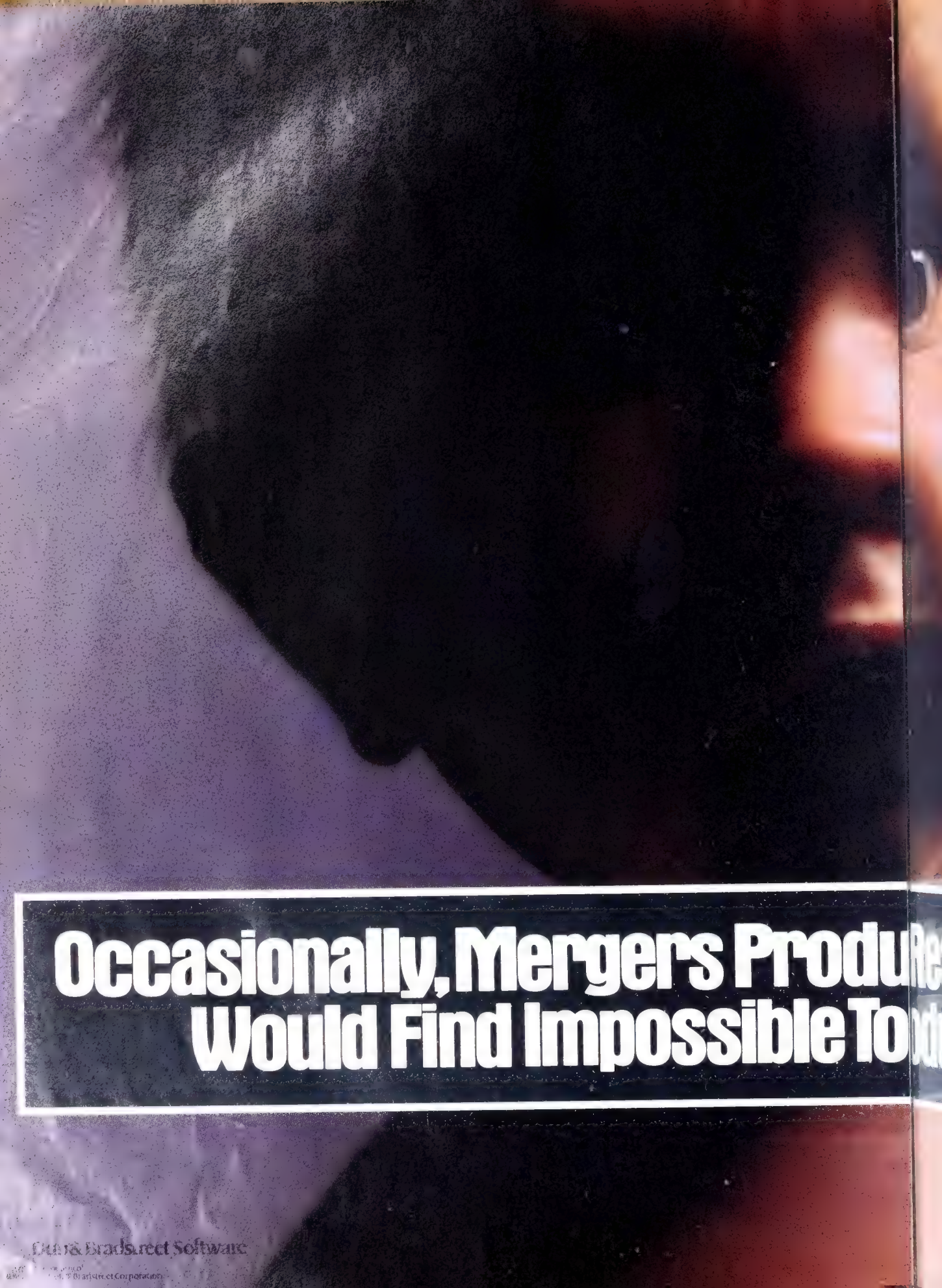
Weyerhaeuser staunchly defends its logging methods, including clear-cutting. Replanted Douglas firs, for instance, cannot grow in the shade of older trees left behind. What's more, burning away debris after logging is essential to lay bare the ground for replanting, and herbicides are needed to eliminate deciduous trees that might otherwise choke off fir saplings.

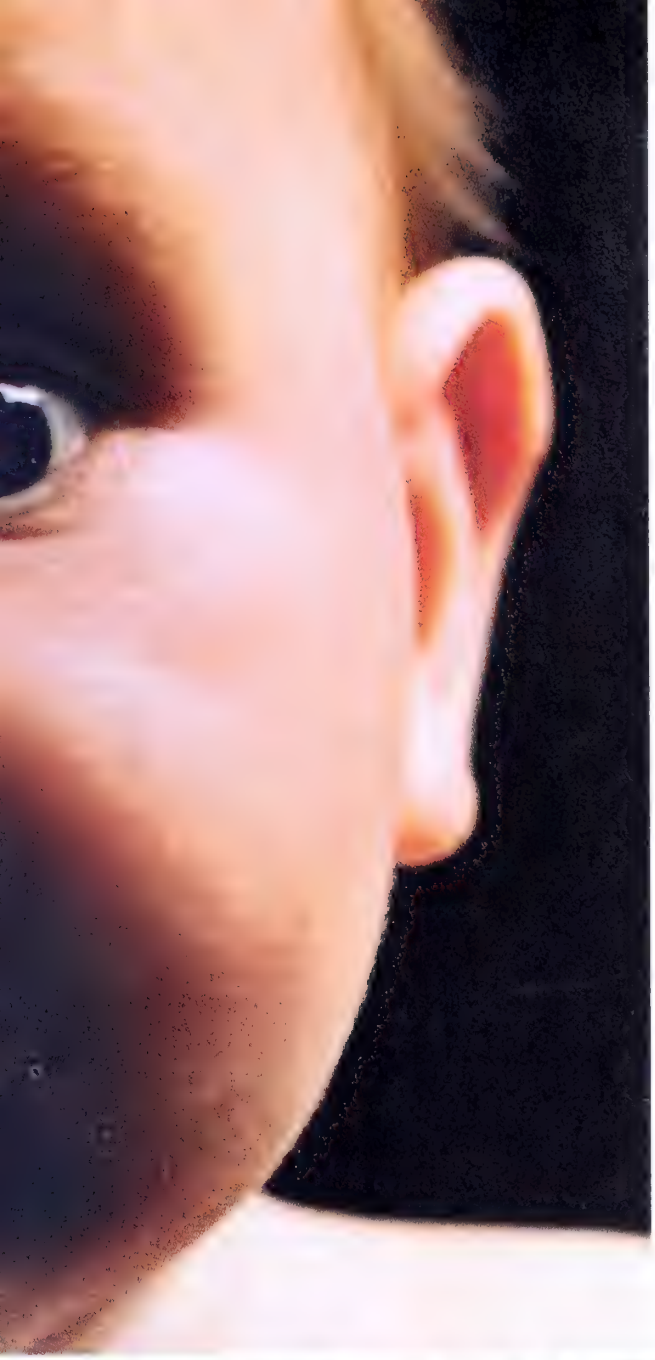


YOUNG DOUGLAS FIRS NEAR MT. ST. HELENS

For now, Weyerhaeuser aims to replant 2% of its land every year. The trees the company planted at Mt. St. Helens won't reach maturity until about 2025. "We're not going to get a payoff for that in my lifetime," says Weyerhaeuser President John W. Creighton Jr. Not everyone may like its tactics, but Weyerhaeuser is certainly returning something to the ravaged slopes of Mt. St. Helens: hope.

By Dori Jones Yang on Mt. St. Helens


Occasionally, Mergers Produ
Would Find Impossible To
Dun & Bradstreet Software



It's not surprising that two can sometimes accomplish things that one never could. What is surprising, however, is just how beneficial the merger of McCormack & Dodge and Management Science America (MSA) promises to be

Together they are combining their talents and energies, along with an unprecedented wealth of experience, to form D&B Software.

On March 1, 1990 MSA Software Merged With McCormack & Dodge To Become Dun & Bradstreet Software.

With more than one-third of the staff committed to servicing and enhancing your existing software, D&B Software will thoroughly protect your investment. And the company works with more than 10,000 customers worldwide. That means unmatched proficiency in dealing with problems, and knowing what works and what doesn't. While raising customer satisfaction to new heights.

The merger will have unexpected benefits in other ways as well. The R&D budgets and expertise of the two companies are now combined. So you can be assured that D&B Software is extraordinarily equipped to help you navigate the tremendous technological changes that lie ahead. Doing so by enhancing current products. And by providing clear migration paths to the next generation of software.

D&B Software will also make certain you aren't left behind in an increasingly global marketplace. Because, with the resources of two companies, your needs can now be attended to in more than 60 countries with a network of seasoned company representatives. And the software solutions themselves are designed to operate worldwide and on multiple hardware platforms

D&B Software is the largest applications software and services company in the world. With the biggest capacity for doing whatever the customer requires. And doing business with a stable, reliable company such as D&B Software, with the full backing of The Dun & Bradstreet Corporation, will allow customers to do something they've always wanted to do. To concern themselves less with their software and more with the business at hand.

esults That Either Party duce On Their Own.

D&B Software. The happy result of a merger. And living proof that when two become one, extraordinary things can happen. For more information about a most welcome addition to the world of software, call (404) 239-INFO.

D&B SOFTWARE

STRATEGIES

CYANAMID'S Rx: MORE DRUGS, FEWER CONSUMER PRODUCTS

Profits should grow, but long-term questions remain

Last year was one George J. Sella Jr. would probably rather forget. First, American Cyanamid Co., where he is chairman, had to pay millions to farmers who claimed their corn was damaged by Cyanamid's Scepter herbicide. Then Cyanamid was hit by a $24 million loss on unauthorized loans at the Brazilian subsidiary of its Shulton Group. The loss shaved 25¢ a share from 1989 profits, which came in at $3.12, and forced the company to report its first earnings decline in four years.

Now, those events are making 1990 all the sweeter for Cyanamid, the Wayne (N. J.) maker of medical, agricultural, and chemical products. Thanks to strong performances by Cyanamid's proprietary herbicides and new drugs being marketed by Lederle Laboratories, its pharmaceutical arm, analysts expect profits to grow by 28% this year. Wall Street also lauded Cyanamid's June deals to sell most of its Shulton consumer products unit. With just $600 million in sales, Shulton simply lacked the marketing muscle to compete with the likes of Procter & Gamble Co. and Unilever PLC.

DRUG PITFALLS. Along with other moves away from consumer goods, the Shulton sale makes Cyanamid look more like a drug company than anything else (chart). There's some risk in that: As mergers leave the pharmaceutical industry increasingly dominated by global giants, Cyanamid may be as outgunned in drugs as it was in soaps and scents.

Cyanamid, which declined to comment for this story, isn't the first drugmaker to abandon cosmetics and personal-care products. This year, SmithKline Beecham sold its Yardley/Lentheric cosmetics units, and Schering-Plough Co. sold Maybelline Co. Acquired in 1971, Shulton didn't bring the returns Cyanamid expected. Its operating margin has hovered around 8% for the past three years, well below the 17.5% margin at Cyanamid's medical division last year. Cyanamid will sell Shulton's Old Spice toiletries to P&G for over $300 million, while Clorox Co. will buy Combat insecticide and Pine-Sol cleanser for $465 million. Sella is still shopping around some remaining brands.

SELLA: HE MAY NEED MORE DRUG R&D

Now that most of Shulton is gone, Cyanamid can focus on its core medical and agricultural businesses. This year, 50% of Cyanamid's sales of $4.5 billion and 60% of its operating profits of $691 million will come from medical products. The agricultural side is thriving, too, thanks to new insecticides and herbicides as well as the resurgence of the farm economy. Cyanamid is less committed to the business it's best known for: chemicals. Three of its chemical units are up for sale, and some analysts expect Cyanamid to divest its $1.1 billion chemical operation completely.

That's O. K. with Cyanamid shareholders, since the price-earnings ratios of pharmaceutical makers average 19, compared with 10 for chemical companies. At a recent price of 58, Cyanamid is trading at about 14.5 times 1990 earnings. Analysts say this relatively low multiple could hinder Cyanamid's efforts to acquire another drug company.

SALES WHIZ. Cyanamid may need such a deal to battle stiff competition. With $2.2 billion in sales, Cyanamid's medical group is much smaller than rivals—such as Bristol-Myers Squibb Co., Glaxo Holdings PLC, and Merck & Co. Merck, for example, had 1989 sales of $6.6 billion and spent $751 million on research and development last year, compared with Cyanamid's $407 million. "Over the long haul, Cyanamid might be better off selling Lederle," says Emmett Murphy, a portfolio manager with Luther King Capital Management in Fort Worth, which owns a $58 million stake in Cyanamid.

Lederle does have its strengths. Despite its modest size, it is known for marketing and sales prowess. That has helped it lure deals to sell new products developed by large foreign companies and small domestic research houses. Sales of Suprax, an antibiotic licensed from Fujisawa Pharmaceutical Co. of Japan, are expected to top $100 million this year, well above original estimates of $60 million. A promising drug in the wings is Photofrin, a cancer treatment developed jointly by Cyanamid

Quadra Logic Technologies Inc. icensing foreign drugs has problems, ıgh. Many foreign companies are ing U. S. units to sell drugs directly, ch may make it harder for Cyanamid ind new products overseas. And over e, the top pharmaceutical companies the ones that invent blockbuster gs—and R&D isn't Lederle's strong . "Lederle has a tremendous market- and selling operation," says former e-President Russell McLauchlan, t there aren't too many drugs that e directly from the Lederle pipeline." ome older Cyanamid drugs are show- new life, thanks to last year's gener- rug scandal. Generics cut into sales Cyanamid's Maxzide diuretic in the t half of 1989, but competition evapo- d when Vitarine Pharmaceuticals to pull its generic version. Sales of xzide should grow by 15%, to $90 mil- , this year. And sales of Cyanamid's ı cow, its Minocin antibiotic, rose 16% year, to $260 million, even though drug has been off patent since 1982. ontrolled-release version should help namid maintain share and add 12% he drug's sales this year.

H HARVEST. Prospects are good for namid's agricultural unit, too. De- e the legal hassles, its new herbi- s have received strong acceptance ng farmers. The crop damage ap- rs to be a fluke caused by droughts t kept the herbicide from breaking n. Cyanamid's Scepter and Pursuit icides had combined sales of $280 ion in 1989, up 20% from the year ore. The market could shrink this r, because heavy rainfall prevented e farmers from planting, but the icides should still gain share.

nalysts expect Cyanamid to use the ceeds from selling Shulton to buy k about 5 million of its 95 million res. That would offset the dilution t occurred last year when Cyanamid ıed 3.9 million shares to acquire Prax- Biologics Inc., a Rochester (N. Y.) vac- e maker. Some of the money will bably go to boost Cyanamid's re- ves for potential environmental ms, and the remainder will go to the tom line. Even without those pro- ds, Paul Christopherson of Bear, arns & Co. expects Cyanamid to earn a share in 1990 and $5 in 1991.

ella, 61, still has some major deci- ns to make before he steps down as in September, 1993. His strategy of phasizing high-margin medical prod- s and specialty and agricultural micals will pay off in rising profits. t to be a real contender in pharmaceu- ls, Cyanamid needs to become a big- player. A merger or joint venture h a major drug company would really ke Sella's 1990 a year to remember.

By Monica Roman in New York

KG

May 31, 1990

Kanematsu USA Inc.

has acquired

Diemakers, Inc.

The International Harvest Group,
of Delaware, Ltd

30 Broad Street • New York, NY 10004
(212) 480-1100

IHG acted as financial advisor to Kanematsu USA Inc. and assisted in the negotiations. IHG is a private investment bank specializing in corporate finance and crossborder advisory services

IHG

Excellence is Our Style

At the office, or At Hotel Lotte

There's one Common link.

More and more businessmen choose our New Wing for its uncompromising luxury and executive services.
Here, they enjoy rooms that are the biggest on average in town, generously sized desks and quick access to a fax, copier and typewriter.
From express check-in at our Hospitality Lounge, friendly assistance and a smile are never far away
Count on more pluses like unsurpassed downtown location that adjoins the Lotte Department Store and Asia's largest Duty Free Shop.
Enjoy the efficiency and comforts of your home office by staying with the best in Seoul.
Stay with Hotel Lotte
We are here to help you get down to business

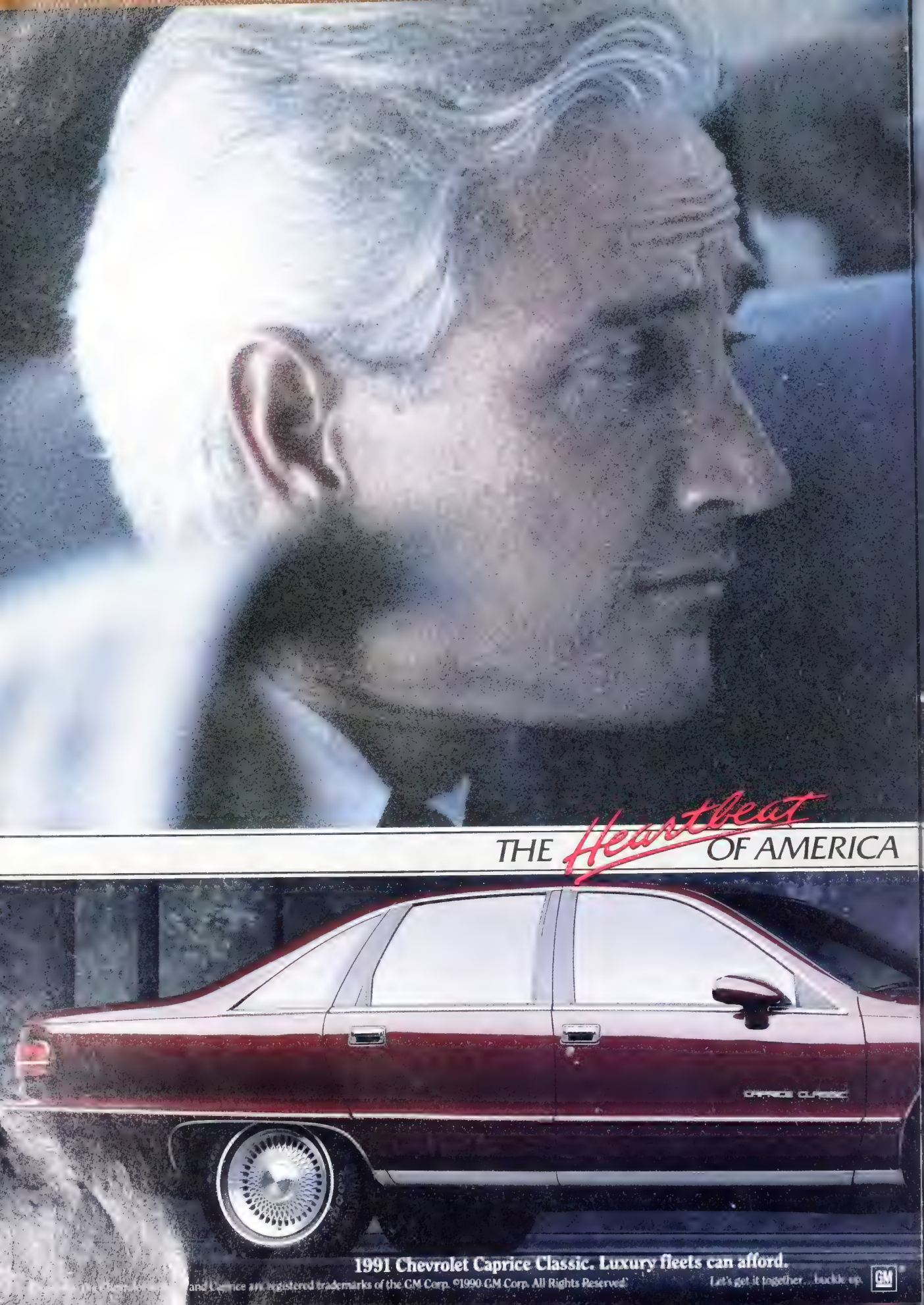
Member in Seoul, Korea

SRS Preferred Hotels Worldwide

- 1484 modern rooms & suites
- 24 restaurants & bars
- Asia's most luxurious health club
- Department store & duty free shop

HOTEL LOTTE
SEOUL KOREA

Head Office: C.P.O. Box 3500 Seoul, Korea. Phone (02) 771-10, Tlx: LOTTEHO K23533/4/5, Fax: SEOUL 752 3758, Cable: HOTELOTTE **Overseas Office:** New York: (201) 944-1117 Toll Free 800-22-LOTTE, L.A.: (213) 540-7010 Toll Free 800-24-LOTTE, London: (01) 323-3712/4 Tokyo: (03) 564-1462, Osaka: (06) 263-1071/2


THE Heartbeat OF AMERICA
CAPRICE CLASSIC
1991 Chevrolet Caprice Classic. Luxury fleets can afford.
and Caprice are registered trademarks of the GM Corp. ©1990 GM Corp. All Rights Reserved.
Let's get it together... buckle up.
GM

Ve wanted a luxury car
e could afford. That's
hy we called Chevrolet."

S WINNING.™ TODAY'S FLEET COMPANY IS CHEVROLET.

It is longer, wider and roomier than the Caprice it replaces, and a generation more erodynamically efficient. Helping make it the most spacious Caprice ever built. As ell as the quietest.

It has V8 power and the exceptional ride qualities of rear drive and separate body-on-frame construction. Coupled with the technical sophistication of standard Bosch ABS 4-wheel anti-lock brake system and driver's-side Supplemental Inflatable Restraint System (air bag). Available luxuries include leather seating areas and electronic keyless entry. Clearly the time had come for a new Caprice. And when you see its affordable price, you'll see it could only have come from Chevrolet.

Call Chevrolet Fleet Sales, 1-800-248-2897. No one has a car like our new 1991 Caprice. Absolutely no one.

PUTTING ALTERNATIVE FUELS IN FORD TANKS

In 1960, in the midst of her love affair with racing boats, Roberta J. Nichols discovered that by switching from gasoline to methanol, she could squeeze more speed out of her boat. Since then, Nichols has built a career preparing America's drivers to do the same—this time, to help fight smog.

As manager of Ford Motor Co.'s alternative-fuels program since November, 1989, the 58-year-old engineer oversees testing of cars powered by methanol, ethanol, natural gas, and other sources. These fuels will be crucial in places such as California, where proposed rules could put 750,000 or more alternative-fuel vehicles on the road by 2000. Since joining Ford in 1979, Nichols has helped put 870 experimental methanol-powered vehicles on the road and has designed engine systems that allow cars to burn alcohol, gasoline, or blends of the two so their range isn't limited by the location of pumps.

Nichols spent her childhood in Los Angeles trekking to junkyards with her car-loving father, a Douglas Aircraft Co. engineer. In 1966, she set a women's quarter-mile boat drag-racing record of 131 mph. Later, she turned to cars, eventually hitting 190 mph on the Bonneville salt flats in a stripped 1929 Model A with a Chrysler V-8 engine under the cowl.

Nichols still spends many weekends under the hood or behind the wheel of her white 1954 Mercedes 300SL. "I should never have important meetings on Monday, because my fingernails are always dirty," she says with a smile. That's one problem alternative fuels won't clean up.

By David Woodruff in Detroit

A PASSION FOR BASEBALL —AND MANAGEMENT

It's no big deal that as a child, Elaine C. Weddington was wild about baseball or that she dreamed of making a place for herself in the sport: plenty of American children do the same. What makes Weddington unusual is that she got what she wanted. At 26, she is the assistant general manager of the Boston Red Sox—a job that makes her the first black female executive in major league baseball.

Weddington works with General Manager Lou Gorman to negotiate players' contracts. Gorman decides who the team wants to keep or hire, and Weddington, a lawyer, drafts the contracts. She faces her first big test next year: persuading pitching ace Roger Clemens to stay. Clemens' off-season grousing about Boston's fans has many wondering whether he'll opt for free agency when his contract expires.

Weddington grew up near Shea Stadium in Flushing, N.Y., and studied athletic administration at St. John's University in Jamaica, N.Y. Between classes, she ran the Mets elevator at nearby Shea, ferrying baseball executives to their offices. Weddington has moved like a Dwight Gooden fastball all along. In 1987, she graduated from St. John's School of Law. Next, she signed up for a one-year internship in then-Commissioner of Baseball Peter V. Ueberroth's office. But by April, 1988, the Red Sox lured her away. Within four months, she was made associate counsel. Named assistant general manager in January, she says she's ready to settle down and savor the job. Says Weddington: "I'm doing what I set out to do."

By Gary McWilliams in Boston

PUSHCARTS! GET YER RED-HOT PUSHCARTS!

Daniel J. and Stanley A. Gallery aren't above name-dropping. Ask about their start in business, and they'll volunteer that their earliest customers included billionaire Marvin Davis, former President Gerald R. Ford, and actor Robert Redford. The Gallerys sold them hot dogs from a pushcart in Denver.

It was a good business. By the mid-1980s, the Gallery brothers were often clearing thousands a week hawking wieners. But hot dogs led them to an even more lucrative business: pushcarts. Dan, 35, and Stan, 32, got the idea in 1984, when a California vendor offered them $5,200 for their pushcart, which they had built themselves and rigged with running water and a top-of-the-line cooking unit. They accepted and, smelling opportunity, decided to switch to selling pushcarts. In 1988, they moved manufacturing into a factory just outside Denver. Now, with about $13 million in annual sales, the Gallerys' Carts of Colorado Inc. dominates the pushcart market. Their goal: revenues of $25 million to $45 million by 1995.

The carts, known in the business as "mobile food service units," are essentially minirestaurants on wheels. Most have running water, refrigerators, and stoves. Prices start at $2,000 and run to $40,000, which buys a fully equipped cart complete with espresso machine. About 85% of the pushcarts are sold to food-and-beverage vendors, but some are used to peddle clothing and trinkets. Bloomingdale's stocks its in-store carts with frozen yogurt, and Nordstrom's turns them into espresso bars. Donald Trump's Taj Mahal casino serves drinks from a dozen ornate gold-and-black carts from the Gallerys.

One attraction of the pushcart business, says Stan, the company's president, is that the market is still growing. There's no industry association to provide figures, but he estimates that sales from carts will total $1 billion this year, a 25% increase from 1989. The Gallerys claim their carts average revenues of $250,000 a year. And depending on their location, sometimes they even sell to the stars.

By Sandra Atchison in Denver

First things first, it's free. Forever.

The best things in life are free. So is the new *AT&T Universal Card.* As a 1990 Charter Member, use the card for a purchase—even once a year—and you'll never have to pay an annual membership fee. The *AT&T Universal Card.* All the benefits of AT&T worldwide connections and service, plus the purchasing power of MasterCard® or Visa.® To apply, call toll-free: 1 800 662-7759.

One World. One Card.℠

© 1990 AT&T

Universal Bank, Columbus, GA

[illegible] common but frequently fatal, an Indian woman has received a vaccination that prevents it. The Hepacoin B vaccine was mass-produced and exported to her country by Samsung.

A businessman in Belgium [illegible] and receive data and information via the most advanced telecommunications system in the world. It was made possible by an exchange of technology and equipment between his country and Samsung.

Last year, a major U.S. consumer advocate publication conducted a survey comparing 14 brands of microwave ovens. The results: When a grandmother from Pittsburgh bought a Samsung, she bought the most reliable microwave oven made.

On February 14, 1989, a Hungarian engineer and 19 fellow countrymen began an intensive technical training program sponsored by Samsung. Our commitment to exchanging technology has also aided development in Malaysia, Pakistan, India and Egypt.

205 locations around the world, we're doing what we've done in our own country of Korea for the past fifty-two years applying technology to make seemingly impossible dreams come true.

SAMSUNG

Technology that works for all of us.

JURIES

A SHOT AT SHOOTING DOWN PUNITIVE DAMAGES

In its next term, the high court may find them unconstitutional

The timing couldn't have been worse. Pat Haslip, a 59-year-old mother of five, was lying in a Birmingham (Ala.) hospital bed suffering from a kidney infection when a hospital check revealed she had no medical insurance. Haslip's agent had pocketed the $105 monthly premiums deducted from her paycheck. And he had diverted the cancellation notices that would have warned that her coverage lapsed.

Haslip, then the assistant city clerk in Roosevelt City, Ala., paid $600 of her $3,500 bill and promised to pay the rest. But when she couldn't make it on her $580-a-week salary, the hospital sued. A $2,200 judgment from 1982 hangs over her head today. "Before, I could go into any store and get any kind of credit," she says. "Now, I can't."

But Haslip may yet come out the winner. In its upcoming term, the U. S. Supreme Court will rule on whether Haslip can collect $1 million in damages she won in 1987 after suing Pacific Mutual Life Insurance Co. and the agent, Lemmie Ruffin Jr. The case marks the fourth time in as many years that the court will weigh the constitutionality of punitive damage awards. "This is the most important case in the country, in the eyes of the business community," says Phillip E. Stano, senior counsel to the American Council of Life Insurance.

In the prior cases, the court has stopped short of addressing the key issue in the Haslip case: whether the leeway given juries to punish defendants violates the requirements for due process—namely, that a defendant can't be punished without fair warning. But last year, in a case involving trash-hauler Browning-Ferris Industries Inc., the court openly solicited a punitive damages appeal such as Haslip's.

The Haslip case is not clear-cut. Pacific Mutual claims that it is the true victim of fraud, because Ruffin kept its premiums. Still, Haslip is a sympathetic plaintiff, and the $1 million award isn't high by recent standards (table).

Groups from chemical manufacturers to the conservative Washington Legal Foundation have rallied to Pacific Mutual's side with friend-of-the-court briefs. They want rules to guide juries. They also want the justices to find that punitive damages amount to criminal fines requiring a tougher burden of proof.

PINTOS TO PESTICIDES. On Haslip's side are victims' lawyers and consumer groups. Put aside the arcane, constitutional arguments by corporate interests, says Consumers Union counsel Linda Lipsen, and "the real attack is on the jury system itself." She argues that courts have safeguards, including appeals, to ensure that verdicts are fair. Haslip's backers also cite studies, such as one issued last fall by the General Accounting Office, finding that punitive damages are not as onerous as business says, but track the damages sustained.

Punitive damages became popular in the late 1970s, as consumers sought to dig into corporate pocketbooks. A verdict against Ford Motor Co. over a Pinto fuel tank that exploded in a rear-end crash ignited a host of product liability suits incorporating claims for punitive damages against the manufacturers of the Dalkon Shield contraceptive, asbestos, pesticides, and drugs.

Faced with varying state liability laws, business in recent years has lobbied Congress for a federal law to rein in the awards. "Business is quite willing to live with the Clean Air Act and with a civil rights bill, but it sees the money spent on punitive damages as quite unac-

THE TOP FIVE PUNITIVE DAMAGE AWARDS IN 1989

CELOTEX Two asbestos victims win $150 million. The company settles for undisclosed sum

KOREAN AIRLINES Families of 137 passengers who died in the 1983 downing of Korean Airlines flight 007 win $50 million. The airline appeals

JOHN HANCOCK MUTUAL LIFE INSURANCE Former insurance agent who claimed he was defamed by his employer wins $25 million. The insurer appeals

TOYOTA MOTOR SALES USA Woman who lost her husband and two daughters when her car was rear-ended wins $25 million.

KANEB SERVICES Accountant who claimed wrongful discharge after he was fired wins $19 million. The Houston company settles for undisclosed sum

DATA: LAWYERS' ALERT, BW

When you're choosing a financial partner, what do you look for?

Will you want the expertise and farsightedness that keeps you ahead in the markets?
Or the strength and stability offered by an organization long on tradition?
At Dai-Ichi Kangyo Bank, we have both.
We were the first bank to be established in Japan, and are today the country's largest.
We have massive resources to call on. And the broadest range of services available.

Yet we are the first to recognize the importance of each individual, and the value of every business partnership.
In the Americas and around the world, the speed of our reactions combined with our sense of traditional values gives us an edge you can rely on.
When the choice of financial partner is yours, choose wisely.
Yours should be the most reliable partner there is.

DKB

Your most reliable partner

DAI-ICHI KANGYO BANK

Head Office: 1-5, Uchisaiwaicho 1-chome, Chiyoda-ku, Tokyo 100, Japan Tel. (03) 596-1111

Network in U.S.A., Canada and Latin America **Branches and Agencies in:** New York, Los Angeles, San Francisco, Chicago, Atlanta, Panama, Cayman **Representative Offices in:** Houston, Toronto, São Paulo, Mexico City, Caracas, Buenos Aires **Subsidiaries in:** New York, Los Angeles, Toronto, Cayman **Associated Company in:** São Paulo

As Fast A
And You Ca

Gets.
Get It Fast.

The NCR PC486/MC is one fast machine. *PC/Computing* reports "the PC486/MC is on the front edge" of 486 desktops.* With its dual high-speed cache design, the system takes full advantage of the performance potential of the i486™ microprocessor. And its implementation of Micro Channel™ architecture makes it the clear leader in providing full 32-bit performance.

According to *BYTE* Lab benchmarks, the PC486/MC's "mass storage subsystem (with a 100MB SCSI hard drive) turned in the fastest performance we've ever measured."*

Standard Features

- i486 Native Design
- Micro Channel Architecture
- 128KB Of High-Speed Cache Memory
- SuperVGA Display Adapter
- Small Computer System Interface (SCSI) Multi-Peripheral Controller
- Worldwide Service and Support
- Available *Now*

Our PC is the only native design 486 Micro Channel machine from a major vendor now available. We've not only released it for sale, we're delivering it in volume. The competition will eventually release a native-design 486. But how long will it be before they can deliver?

The PC486/MC is ideal for MIPS-hungry applications like large spreadsheets, financial modeling, simulations, CAD, and networking.

It's the first of a family of advanced PCs that will lead the market in speed, power, and availability.

Our PC family also includes high-performing 286™ and 386™-based PCs. Backed by the resources of a $6 billion computer company with service and support in nearly every country in the world. And a commitment to quality that is unequaled.

Call 1 800 544-3333 for a free six-page 486 PC comparison brochure. We'll also put you in touch with the NCR or Businessland representative, or other Authorized NCR Reseller nearest you.

NCR

Open, Cooperative Computing.
The Strategy For Managing Change.

NCR is the name and mark of NCR Corporation. Micro Channel is a trademark of IBM Corporation. 486, 386, and 286 are trademarks of Intel Corporation. *Sources: *PC/Computing*, March 1990. *BYTEWEEK*, 11/13/89. © 1990 NCR Corporation

ceptable," says Richard Samp, the Washington Legal Foundation's chief counsel. Business has had more success in the state houses. Since 1986, 20 states have stiffened standards of proof for plaintiffs seeking punitive damages. Nine states, including Alabama, have capped the awards. Alabama's $250,000 cap—which came after the Haslip case—is now being challenged by trial lawyers.

Companies complain that the jury's discretion too often produces awards so unpredictable and excessive that they are unconstitutional. The Haslip trial judge followed state law in telling the jurors: "Imposition of punitive damages is entirely discretionary with the jury."

The Haslip case, moreover, raises a separate issue of concern to companies: liability for the actions of errant employees. Pacific Mutual argued, to no avail, that agent Ruffin, who didn't even show up at the trial, acted beyond the company's authority. "If you go to a jury, most times you're going to lose," says Ollie L. Blan Jr., a lawyer for Pacific Mutual. The company, he adds, did not even write health insurance for municipal workers. Rather, Ruffin had told Haslip that he would insure her with another carrier he had falsely identified as a Pacific Mutual subsidiary.

But Pacific Mutual had given Ruffin business cards, stationery, and customer contacts. "He presented himself as a Pacific Mutual agent," recalls Mabel Poindexter, a former city clerk who handled Haslip's deductions. And there was evidence that Ruffin's boss, the local Pacific Mutual manager, had helped divert the cancellation notices. Says Poindexter: "I think they should be punished. If a company is that lax with its employees, I think something should be done."

NO SUBSTITUTE. What will the Supreme Court do? Comments by justices in earlier cases suggest they're troubled by the leeway juries enjoy. But business can't count on winning. In last year's 7-to-2 decision upholding a $6 million verdict against a Browning-Ferris unit, Justice Harry A. Blackmun wrote that it was not the high court's role either to measure punitive damage awards against actual damages sustained or "to substitute our judgment for that of the jury."

Some observers predict the court in the Haslip case will carve a narrow path, setting general jury standards but upholding the $1 million award. That would please Haslip. After eight years, she is fed up with corporate lawyers making constitutional arguments about why she shouldn't be entitled to punitive damages. "They're not taking into account the stress I went through," she says. "If they award me that amount, they are telling big corporations you cannot misuse people and get by."

By Tim Smart in Birmingham, Ala.

CAN ALLEN QUESTROM GET THE UP ESCALATOR MOVING?

He's trying—but an Allied-Federated turnaround is yet to come

Allen I. Questrom, chief executive of Federated Department Stores Inc. and Allied Stores Corp., says running a department store is simple: You just give customers what they want. "This isn't rocket science," he explains. "It's pretty basic stuff."

Running department stores may be simple, but getting Federated and Allied out of bankruptcy court will be anything but. The two companies, owned by Canada's Campeau Corp., filed on Jan. 15 for Chapter 11 protection from holders of junk bonds, the banks, and the suppliers—groups that collectively are owed more than $7 billion.

G. William Miller, the former Treasury Secretary recruited to be chairman of Federated Stores Inc., the two retailers' holding company, wants to get them out of bankruptcy by swapping a big chunk of bondholders' debt for equity. But selling the idea to creditors depends on the performance of Questrom: The longer he takes to turn around the stores, the less attractive they will be as investments—and the less inclined creditors will be to accept equity shares in them. Miller also worries how a prolonged bankruptcy will affect the support of vendors: "That support will start to erode if we stay in Chapter 11 anywhere from one to three years," he says.

GLOOMY STATS. Six months into Questrom's tenure, the 260 Federated and Allied stores are nowhere near a turnaround. For the first quarter ended May 5, overall sales for the two groups are essentially flat at $1.6 billion. Worse, operating income is down sharply from $46 million to $27 million (table).

Those numbers underline how monumental Questrom's job is. Even before Canada's Robert Campeau bought Allied and Federated, they had been slowly sliding from their top position in retailing to the middle of the pack. More agile companies such as Nordstrom Inc. and May Department Stores Co. generated consistently higher returns throughout the 1980s. And under Campeau, the stores—which include Bloomingdale's, Abraham & Straus, Rich's, and Burdines—had to worry about generating the $600 million he needed for his annual interest payments.

The bankruptcy has effectively ended Campeau's authority. But the problems of his era remain, and the 50-year-old Questrom, who spent most of his career at Federated before going to Neiman-Marcus in 1988, has to deal with them. Then there's the general slump in retailing. The Jordan Marsh chain, for example, is struggling in a New England recession. Meanwhile, morale, though improved somewhat since Campeau's departure, needs more shoring up. "Everyone is numb," says one young executive at Bloomingdale's.

And Questrom still is stuck with the effect of purchase decisions made by his predecessors. Last year, buyers at Fed-

HOW THE STORES ARE DOI

Performance from Jan. 15, 1990, Chapter 11 filing through Ju

	[illegible]	OPERATING EA[illegible]
LAZARUS/ABRAHAM & STRAUS	$551.9	-$27.3 **
BLOOMINGDALE'S	401.6	-5.0
RICH'S	265.8	5.2
BURDINES	268.8	3.8
JORDAN MARSH	208.3	-18.0
STERN'S	212.3	1.7
MASS BROTHERS	219.7	-2.9
THE BON MARCHE	206.5	[illegible]
TOTAL	$2,337.7	-$34.1

* Earnings before interest and taxes ** Includes share of corporate [illegible]

DATA: COMPANY REPORTS

ed and Allied loaded up on staples n as white shirts and black socks, ring the consumer was headed back basics. But they bought too much, only now are they all being sold.

o clean out aging merchandise, Ques- n has been aggressively marking n prices. That strategy has helped ress margins. But with old stock red away, Questrom now can apply techniques he demonstrated at three er chains he turned around—Neiman- cus, Rich's, and a former Federated in, Bullock's.

efore Questrom arrived at Bullock's 984, the Los Angeles-based store had its No. 1 position in the city and was stantly slashing prices in costly clear- e sales to compete. Questrom weaned lock's from its dependence on dis- nting by buying less merchandise improving selection to attract more uent shoppers. He also beefed up the s force to improve customer service. uestrom now is trying this approach a companywide scale. Since he ar- d in January, he has spent 80% of his e on the road, visiting stores, holding rmal sessions with the workers, and consulting with division executives. He has even written his own "11 commandments" of retailing that executives get on six-by-four cards. Roughly translated from retail jargon, they say: Don't buy too much merchandise that has to be drastically marked down later. Don't buy too far in advance; that way, if consumer tastes change, you can react quickly. And if something is not moving off the floor fast enough, mark it down to make room for fresh goods.

DELIVERING THE GOODS. With such touches, Questrom is making his presence felt. Inventory levels, which were too high through most of last year, are slowly declining. The number of planned sales promotions is being cut.

To get goods faster, Questrom has also radically changed the buying program. Instead of nine divisions each sending its own buyer to the same supplier, executives now decide what item all of the stores would like and then issue a single order. That means suppliers don't waste time adjusting different orders. And stores can still keep their individual character by separately buying some goods to reflect regional differences. Already, one children's apparel maker reports the streamlining has cut his delivery time to Federated from 65 days to 15 days.

Questrom is also putting the brakes on an ambitious private-label program, which required working directly with manufacturers to have apparel made exclusively for the stores. Federated had planned to have 20% of total sales come from private labels by 1992. But Questrom thinks the program ties up company capital and distracts management. The program will be trimmed.

Not everything is being scaled back. As a young executive, Questrom bought linens for Federated, and he now is planning a big expansion in home furnishings, which includes everything from sheets to sofas. For the most part, department stores ignored that business in the 1980s as consumers concentrated on apparel. Questrom figures that with consumers aging, more money will be spent on the home. Bloomingdale's President Marvin S. Traub also sees this as an area where Bloomie's can shine: Several of his competitors, he says, have gone out of the furniture business. Bloomingdale's business in apparel is being pressed by such fancy New York retailers as Bergdorf Goodman and The Limited's Henri Bendel.

BLUE CHRISTMAS? Despite Federated's poor results this year, Questrom's efforts are earning quiet appreciation. "He's bringing a sense of direction," says Andrew J. Herenstein, an analyst for Delaware Bay Co., which trades in securities of distressed companies. Federated and Allied bonds, some of which still trade for as little as 7½¢ on the dollar, have nevertheless risen as much as 50% after hitting bottom shortly after the Chapter 11 filing.

How long the market's appreciation lasts may depend on Christmas. Other retailers such as Macy's are also holding the line on inventory to avoid ruinous clearance sales should holiday shopping be slow. But with consumers growing more worried about the economy, early clearance sales could start popping up and hurt profits a second year in a row.

Questrom doubts that his revenues will increase even 5% overall this year. And he doesn't foresee a complete comeback for two years or so. Meanwhile, the creditors wait and hope. "For now, the company has us over a barrel," says one bondholder. "It would take forever to recoup our money if we go through the courts, and we still wouldn't get all of it." Creditors, employees, and customers can only hope that Allen Questrom gets the basics right.

By Stephen Phillips in Cincinnati, with Laura Zinn in New York

M IS ON THE ROAD MOST OF THE TIME, PUSHING HIS "11 COMMANDMENTS" OF RETAILING

CLAUDIO EDINGER/GAMMA-LIAISON

Wherever your business takes you, the Gulfstream IV can take you.

Some people seem to believe that as you go up the ladder in business jets, you run out of things the airplane can do.

The way they see it, by the time you get to the Gulfstream IV, which is at the very top, the only thing it is good for is to fly the long intercontinental missions.

Exactly the opposite is true, of course.

As a business jet gets bigger, as its flight management and aircraft systems get more advanced, as its engines become more akin to those that power airliners, and the wider its performance envelope becomes, the *more* it can do.

That certainly is the case with the Gulfstream IV.

Gulfstream Aerospace Corporation, P.O. Box 2206, Savannah, Georgia 31402 U.S.A.

kes you,
ou there.

A well-managed Gulfstream IV can
come a unique asset in a corporate aircraft
eration. In fact, it is perfectly plausible to
pect this one amazing machine to do as
uch as two lesser aircraft, and perhaps
en more.

There is no question about its long-range
owess. The Gulfstream IV has the endur-
ce and speed to fly nearly 5,000 statute
iles non-stop in about 9.5 hours; the reliabil-
of its engines and systems helps make every
our pass placidly; and a big, roomy cabin
akes every mile go by comfortably.

It brings these same capabilities to shorter
ps and, in the right hands, does it with sur-
ising efficiencies and cost-effectiveness. In a
rvey of Gulfstream IV operators by a major
iation publication,* most reported that
*hey have found the Gulfstream IV to be eco-
omically practical for trips ranging anywhere
om one hour to 9.50 hours in duration...".*

Its size is a plus in helping achieve optimum
ilization. The Gulfstream IV can take more
ssengers farther faster than any other busi-
ss aircraft. (And, in our experience, people
ldom pass up the opportunity to ride in it
d pilots always want to fly one.)

Despite its size, the Gulfstream IV can get
to and out of hundreds of airports where
u normally find only smaller jets. And that's
t simply because of its sparkling perform-
ce, but because it is also a good neighbor.

Few airports are more noise-sensitive than
ashington's National Airport; the FAA says
e Gulfstream IV, with its Rolls-Royce Tay
engines, is quiet enough to come and go there
anytime, day or night. (It all suggests you can
plan on going almost anywhere you want to
go–which is the fundamental reason to oper-
ate any business jet.)

In short, the Gulfstream IV has an
uncommon versatility that makes it uncom-
monly productive.

We can show you why and how this hap-
pens on an actual business trip you and your
key executives have to take somewhere at
home or abroad.

If you need to go 5,000 miles non-stop, fine.

If you need to go where airline service is
impractical or impossible, we can show you
how easy the Gulfstream IV makes it to get
to, not merely one place but several, and have
you home again in a single day.

If we can have the time to show you how the
Gulfstream IV does both, so much the better.

What's important is that you have the
opportunity to put the Gulfstream IV in its
proper perspective.

The person who's ready to see that you get
that chance is Robert H. Cooper, Senior Vice
President, Gulfstream Marketing.

Call him at (912) 964-3292.

Gulfstream
Aerospace

The Gulfstream IV.

Uncommonly versatile,
uncommonly productive.

lfstream Marketing Regional U.S. Offices are Northeast (203) 677-7666; Midwest (312) 571-6606;
d-Atlantic/Southeast (912) 964-3283; Southwest (713) 782-6782; and Western (213) 420-5059.

lfstream IV Operators Survey," *Business & Commercial Aviation,* August 1989.

HORSE RACING

THE FOUR HORSEMEN OF THE MONOPOLY?

The oil-rich Maktoum brothers have put rival owners in a spin

HAMDAN AL-MAKTOUM (RED TIE, CENTER) WITH HIS 1989 EPSOM DERBY WINNER NASHWAN

The five days of late-June racing at Royal Ascot are the height of the season for Britain's horsey set. But if your name is Maktoum, Ascot is just another family reunion. Hardly a race went by this year without one of the four Al-Maktoum brothers of Dubai entering at least one horse. And in the $145,000 Gold Cup on June 21, Sheikh Hamdan Maktoum's long shot, Ashal, upset the heavy favorite, Sadeem, owned by Sheikh Mohammed Maktoum.

That's world-class sibling rivalry—and business as usual for the new aristocrats of Thoroughbred racing. Over the past decade, the Maktoums have been plowing a good chunk of the oil fortune gushing from the Persian Gulf state they rule into the finest bloodstock in the world. They have plenty of money to play with: Dubai's oil earnings totaled some $2.3 billion last year, according to consultants Petroleum Finance Co.

SQUEEZE OUT. With their lavish spending, the brothers have created work for thousands in racing, from stableboys to star trainers. They're also squeezing out rival owners. "Arab investors keep relentlessly driving up the prices to buy the best horses," says French racehorse owner Paul de Moussac, voicing a concern of owners throughout Europe. "We have to run equally top-notch racers to stay in the running, but very few French owners can afford to do that."

Since 1983, the brothers have spent almost $422 million for 712 horses at U. S. auctions, primarily at Kentucky's Keeneland. Last July alone, they paid $42 million—or 36% of Keeneland's total take—for 63 horses. Most of the animals they buy race on Europe's turf courses, where the brothers have enjoyed wild success. Three of the top five owners in Britain this year are Maktoums, and last year, Mohammed was the leading owner in Britain, Ireland, and France.

The Maktoum brothers have also built a state-of-the-art operation that stretches from the U. S. to Europe to Australia. "They've done as professional a job as anyone I've ever seen," observes Will Farish, a veteran Kentucky horseman.

That might be expected from a family that has transformed Dubai into a go-go trading center. Back home, Maktoum, the oldest brother, is Prime Minister; Hamdan, Finance & Industry Minister; Mohammed, Defense Minister; and Ahmed, chief of the armed forces. Together, they control the banks, the airline, and the port.

The Maktoums, who declined several requests to be interviewed for this article, have plenty of admirers. But their spending—perhaps $1 billion over the past decade—rankles European owners who can't match their buying clout or their ability to absorb losses. U. S. owners are starting to complain, too. "We're spending years of our income [at auctions]," says D. Wayne Lukas, the leading American owner-trainer, "and they're spending hours."

CUTTING BACK. Senior aides to the Maktoums say the brothers are getting the message. "We're all aware of the concerns, and we discuss it plenty," notes Hamdan's racing manager, Angus Gold, who oversees 290 horses. Gold says he and other Maktoum managers are limiting what they'll pay for yearlings. A good test of their resolve will be mid-July's Keeneland sales.

Another sign of newfound conservatism: The brothers no longer pay big fees to enter races if they're not sure their horses are ready to run. Last year, Hamdan paid out $1.3 million in entry fees, roughly equal to the lifetime earnings of his star colt, Nashwan, winner of the 1989 Epsom Derby.

Scaling back the brothers' vast network is risky because the Maktoums and the horse-racing industry have become so interdependent. The worst fear: that the Maktoums and other Arabs will pull back sharply, setting off a downward price spiral that would ripple through breeders, trainers, and sales companies. The Maktoums, who sponsor 12 races and give heavily to racing charities, "have been subsidizing British racing, so my nightmare is if they drop out," worries Hanson Industries Inc. Chairman Sir Gordon White, a racehorse owner.

That bad dream probably won't come true. The brothers are avidly involved in all aspects of racing, from attending auctions to deciding which horses to retire to stud. And they know their horses: Hamdan's filly, Salsabil, won the Irish Derby on July 1—after Hamdan overrode her trainer's advice to skip the race.

Now, at least one Maktoum has set his sights on the U. S. "Within three years," promises Michael Osborne, manager of Kildangan, Mohammed's Irish stud farm, "Sheikh Mohammed will be aggressively competing in the U. S. He would love to win the Kentucky Derby."

Odds are that Mohammed and his brothers will wind up in plenty of American winner's circles in years to come. But it's also a safe bet they'll hear lots more hooting from the sidelines, as other horse owners keep eating their dust.

By Richard A. Melcher in London, with bureau reports

JAPAN
UNITED STATES

The Challenge of the 90s:

ACHIEVING THE TRADE BALANCE

The United States and Japan are two countries divided by a common economy — almost. Certainly the links between the two are so close that any rupture could spin the world into global depression. Idle talk about trade war from either side is about as sane as proposing the beneficial impact of a nuclear winter. What divides these two giants, which together comprise some two fifths of the world economy, is the U.S. trade deficit with Japan. To be sure, this deficit has declined substantially in absolute and relative terms since its 1987 peak — when it equalled more than 45% of the total bilateral trade, compared to under 32% last year. But the implications of the deficit continue to rankle both countries and, indeed, this year caused Japan-U.S. relations to plumb new postwar depths, at least in terms of economic issues.

JAPAN UNITED STATES
The Challenge of the 90s
ACHIEVING THE TRADE BALANCE

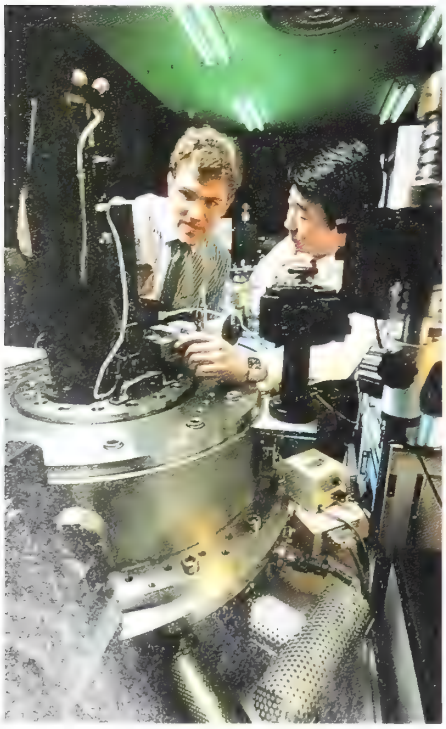
POLITICAL FRUSTRATION IS RISING

The problem is not simply the existence of the trade imbalance between the United States and Japan or even its size. It is the stubbornness of the imbalance, its resistance to all the standard remedies and the legacy of resentment on the part of U.S. businessmen who believe they were closed out of a protected Japanese market while their own home market was systematically assaulted.

The seemingly inevitable conclusion is that Japan does not play fair — note the present tense, though the imbalance is declining. "Only Retaliation Will Open Up Japan," a 1987 Harvard Business Review article declared. The so-called trade "revisionists," most notably Clyde Prestowitz and James Fallows, opt for "managed trade" where specific targets are set.

But there can be no quick fix to the trade imbalance because the causes — on both sides — are fundamentally structural and any artificial solution will only make matters worse.

In the case of Japan, as Brookings' Edward J. Lincoln demonstrates in Japan's Unequal Trade (1990), until quite recently the dice were loaded against manufactured imports — even though, ironically, this probably limited the growth of Japan's own export industries. Unless the structural issues are tackled — again on both sides — achieving balance will be impossible.



Hitachi vigorously promotes international technology exchanges.
Above right: Mitsubishi Kasei's research in Japan

YET JAPAN IS CHANGING

Structural change is already under way in Japan. The percentage of manufactured exports in Japan's total imports increased from 22.8% in 1980 to 50.3% in 1989. In the case of imports from the U.S., manufactured goods were 58.3% of the total.

"Overall, the U.S. Japan trade imbalance is improving," notes Fujitsu Chairman Takuma Yamamoto. "Every Japanese automotive and electronics company, certainly, is making the maximum effort — holding back on exports, investing overseas and importing more."

The last tends to be overlooked. As trade friction worsened in the mid '80s, many Japanese companies began to make a conscious effort to source products and components abroad. Changing cost structures make global sourcing a necessity. Since FY1986 Hitachi's overseas purchases have been increasing. "If a product meets the user's need, we treat it the same as a Japanese-made product," explains Hitachi President Katsushige Mita.

In FY1988 Toshiba's imports came to Y100 billion; by FY1993 the total should be Y200 billion. In FY1988 NEC purchased $543 million abroad, compared to exports of $1.45 billion. For FY1993 the projections are imports of $924 million — more than half from the U.S. — against exports of $1.2 billion.

Last year Mazda's overseas purchases

leaped 42%. "In an endeavor to reduce the trade surplus, we have expanded our Japanese domestic sales activity and dramatically increased our imports from offshore," says Mazda Motor of America Senior Vice President and General Manager Clark Vitulli.

CAN JAPAN SAY NO?

Japan, of course, has its own trade revisionists who resent the changes the country is being asked to make — especially in the current Structural Impediments Initiative (SII) talks between Japan and the United States. They argue Japan's strength in advanced technologies gives it the option of just saying no.

But this is a minority view. "For most Japanese business executives and government officials, friendly relations with

U.S. are fundamental," says Akira gata, president of Nikkei Business BP. ithout the U.S.-Japan relationship, an will not survive," adds Mitsubishi sei President Masahiko Furukawa.

CHALLENGES JAPAN

e SII talks force Japan to consider vir- lly all the country's sacred cows and cial interests — from the way govern- nt buys hardware and grants contracts how consumers shop and ultimately ere they live. Even when government gotiators can agree, questions remain ether the deal can be sold politically. Komatsu President Tetsuya Katada is timistic: "Although the trade conflict is vere, Japanese public sentiment is cool. rhaps that is because so many of the ues are consumer-related. Government should liberalize the economy further."

"There is room for improvement on the Japanese side and many Japanese people welcôme the U.S. proposals," agrees Ricoh President Hiroshi Hamada. He cites excess regulation as well as high land, transportation and service costs.

Hitachi's Mita predicts, "The present talks will bring some improvement. The present over-regulation in Japan hinders development and leads to complaints the economy is not open." Adds Kikkoman Executive Managing Director Yuzaburo Mogi, "If we continue with these talks, we can solve the trade imbalance problem, at least to some extent."

But Nikkei Business BP's Nagata warns that the path is not an easy one: it was only recently that the Japanese media noted the two governments refer to the talks in different ways, with Japan dropping the word "Impediments."

PHYSICIAN, HEAL THYSELF

Although the SII talks occasionally mention the U.S., the structural problems facing the U.S. economy are just as great or greater than those in Japan. The twin deficits, notes NEC President Tadahiro Sekimoto, are only part of the problem. For much of the last quarter century the U.S. has been "de-industrializing" — with devastating consequences for the trade balance.

NEC's Sekimoto puts this in a macro-context: "The U.S. entered the information age 20 to 30 years ago. That is why the U.S. is so much better at software development than hardware manufacture." Another consequence is that U.S. companies are no longer in certain fields, such as fax machines. "Fax machines add to the U.S. trade deficit," he says, "but if you stopped importing fax, American companies could not enjoy office automation."

"U.S. businessmen concerned with the trade imbalance," suggests Fujitsu's Yamamoto, "should read the M.I.T. study, *Made In America*, which analyzes the differences between U.S. and Japanese companies and what U.S. companies need to do."

"The trade imbalance has many aspects," comments Hitachi's Mita. "One is the disparity between the U.S. and Japanese industrial structure. This is true in every respect — from the low status accorded people in manufacturing in the U.S. to the way U.S. companies prefer to buy products others make.

"To reduce the imbalance the American industrial structure must be changed," Mita continues. "Our effort to establish plants in the United States should help. As those plants mature — replacing imports from Japan with local production — trade friction will die down."

Human Electronics–Technology for the Benefit of Mankind:

How a picture tube made in the U.S.A. is helping Americans enjoy a brighter picture of life.

A new state-of-the-art television picture tube factory opens in Troy, Ohio. Business people see it as yet another example of Matsushita's ever growing commitment to manufacture and develop a broad range of products in America. To the people of Troy, like those in towns across America, Matsushita's U.S. operation represents a whole lot more. A chance to enjoy a better picture of life.

Enthusiasm. Energy. An abundance of new ideas. This is what it takes to succeed. This is what Matsushita Electric finds in Troy, Ohio; Santa Barbara, California; Peachtree City, Georgia–and in all its U.S. factories and R&D facilities.

MADE IN AMERICA

Matsushita has 12 manufacturing plants and 6 R&D facilities in the U.S. There are over 100 sales and service centers. The combination of American "know-how" and Matsushita support has created some extraordinary results. From major breakthroughs in digital communications to computer systems that will teach hearing-impaired children to speak. Today, Matsushita's U.S. operation employs over 10,000 Americans who are developing and manufacturing new products made specifically for the U.S. market. And many of Matsushita's American factories are even building products for export to Japan and other countries.

The business community sees Matsushita's U.S. operation as a success. But even more importantly, so do the local communities that are now home to Matsushita.

COMMUNITY UNITY

Matsushita also helps build strong communities. Towns with caring, concerned individuals. To encourage this, Matsushita donates equipment to local organizations, provides facilities for town use, and has set up a $10 million fund to help improve education in primary and secondary schools. Matsushita even endows professorships at Harvard and MIT.

HUMAN ELECTRONICS

Building factories and R&D centers that help people build better lives is just one example of what Matsushita Electric means by the term Human Electronics. Every day Matsushita dedicates its vast resources to researching, developing, and marketing products that make life richer, safer, and more comfortable. In the U.S. these products are sold under the brand names Panasonic, Technics, and Quasar. In 1989, Matsushita's worldwide consolidated sales volume surpassed $37.7 billion. All a direct result of a single-minded philosophy: Don't create technology for technology's sake, but for man's sake.

MATSUSHITA ELECTRIC

PANASONIC TECHNICS QUASAR

THE WALLS ARE TUMBLING DOWN

The Impact of Market Liberalization in the 1980s

The most pernicious myth in the debate over economic relations between the United States and Japan and Japan's continuing trade surplus with the United States probably is that Japan has not changed, that the Japanese market is just as closed as it ever was. This is not true.

Twenty years ago, even ten years ago, a visit to a Japanese home, or a stroll through a Japanese department store, almost always was an all Japanese affair. Foreign-made products were extremely rare. Much the same was true in the Japanese office or factory. Especially a decade ago, products made in Japan, whether they carried local or foreign brand names, dominated the market, save in specialized niches and in some frontier technologies.

In the 1980s this pattern began to break down. Again a walk through a department store is instructive: today foreign products are everywhere, not just in the designer and luxury boutiques, but there are cameras made in Taiwan, shirts in Hong Kong, home appliances in Thailand, televisions in the U.S.

As a result of market liberalization in the 1980s, Japan is importing more U.S. beef than ever

IN THE 1980S THE MARKET OPENED UP

During the '80s the percentage of manufactured goods in Japan's imports increased from 22.8% in 1980 to 50.3% in 1989. Part of the gain, of course, was statistical and must be attributed to lower energy costs. But much of it reflects changes in Japanese market demand. While the value of non-manufactured imports fell during the 1980s, manufactured imports increased by more than 230%.

Much the same is true of U.S.-Japan trade. In 1980 44% of Japan's imports from the U.S. were manufactured goods and in 1989 58.3%. While U.S. exports to Japan virtually doubled during the decade, sales of manufactured products increased more than three times as fast as non-manufactured goods— by 161% compared to 47%.

U.S. companies trying to break into the Japanese market also made gains. In the early '80s, an official tobacco monopoly effectively held U.S. cigarette imports to a 2% market share. With market liberalization, U.S. imports increased almost five-fold by 1989, while the U.S. market share soared to 10% and climbing.

EVEN SEMICONDUCTORS MADE GAINS

Gains have been made even in such contentious areas as semiconductors. Between the third quarter of 1986 and the fourth quarter of 1989, foreign semiconductor producers' market share in Japan has increased from a range of 8.6-10.3% to 12.9-16.3%—the ranges reflecting different reporting sources. In value terms sales have more than doubled.

Looking at major semiconductor users, the outlook is better yet. Automakers, including Toyota, Nissan and Honda, have announced they intend to increase the foreign share of the semiconductor purchases five-fold by 1992. Electronics companies, such as NEC, Hitachi, Toshiba and Fujitsu say they already buy 17-21% of their semiconductors from foreign producers. By the end of this year Hitachi, Toshiba and Fujitsu expect to hit 20%-21%, while NEC is targeting 24% for 1991.

Overall Japan's trade surplus peaked in 1986. By 1989 the surplus against the world was down 22%.Viewed as a proportion of the total U.S.-Japan trade in goods, Japan's surplus rose from 12.5% in 1980 to 45.3% in 1987 and has now retreated to under 31.8%

MARKET REFORM SET THE PACE

It is not easy to change the course of an economy quickly. Usually it takes some years before the consequences of policy decisions are felt, for good or ill. Japan

entered the 1980s with the same export orientation—the same export or die philosophy—that had powered its post war economic miracle in the '50s and '60s.

But it was growing increasingly clear that this export orientation could only bring steadily worsening friction with Japan's major trading partners. Japan was not exactly a closed market even then— witness the success of Coca-Cola, Schick or IBM — but it was certainly not an easy one to penetrate. Ignoring the maxim don't fix what isn't broken, during the 1980s the Japanese government began to redirect the world's most successful economy.

These initiatives were at first rather tentative. They had to be, both because no one has ever done what the Japanese set out to do in the 1980s and because there were significant domestic economic and political interests involved. Unfortunately, no single Japanese initiative could instantly redress the worsening trade imbalance, especially with the U.S., and as a result each Japanese initiative in turn tended to be written off, rather unfairly, as too little, too late.

The cumulative impact of these successive market liberalization measures, however, was substantial. Under initiatives framed in 1981-83 there was an expansion of ceiling quotas; an acceleration of tariff reductions; establishment of the Office of the Trade Ombudsman to assist in settling complaints from foreign companies; and a decision to strengthen the import promotion role of the Japan External Trade Organization (JETRO).

In 1984-85 tariffs were cut or eliminated on over 60 items. A multi-year schedule was drawn up for increases in quotas on beef, fresh oranges and orange juice, pointing the way to further reforms in the years ahead. Improvements already begun in the standards

JAPAN'S TRADE BALANCE IMPROVES WITH THE WORLD AND THE U.S.

Source: Ministry of Finance.

and certification procedures were accelerated; the decision was made, in principle, to harmonize Japanese standards with international standards.

At the same time JETRO encouraged and assisted foreign companies seeking to invest in Japan. It was decided to abolish the government's tobacco monopoly and liberalize tobacco importing, wholesaling and retailing. The government also began the process of privatizing the Nippon Telephone & Telegraph (NTT), with the aim of opening up Japan's high-tech market.

FINANCIAL LIBERALIZATION ALTERED ECONOMIC HORIZONS

But the most far-reaching initiative taken in the early 1980s was the decision to deregulate Japan's financial markets. Working in close concert with the U.S.— a tactic often used to circumvent domestic special interest groups and accelerate the pace of reform — the Japanese government launched a far-reaching liberalization program. Now in its final stages, this program when completed could put Japan ahead of the U.S. in terms of financial deregulation and market openness.

The most important immediate impact of financial liberalization, however, was to enable the U.S., Japan and the other leading industrialized nations to begin lowering the exchange rate of the U.S. dollar to more reasonable levels, under the Plaza Agreement in 1985. Within six months the Japanese yen had appreciated by a third against the dollar. Although the short-term result of a weaker dollar was a dramatic increase in the U.S. trade deficit, in the long term it brought greater competitiveness for U.S. exports.

Currency revaluation took place as Japan was beginning to implement its most ambitious market-opening package ever, the three-year Action Program announced in 1985. Encompassing and building on past initiatives, the Action Program was a conscious effort to make domestic demand the driving engine of the Japanese economy.

There were wide-ranging tariff cuts, with levies eliminated on cigarettes and a number of telecommunications and computer products. Many import quotas were again eased, and those on

Many foreign firms have established a strong market presence in Japan.

leather and leather footwear were abolished. Import procedures, once a source of much friction, were greatly simplified.

Standards and Certification procedures were aggressively brought into line with the rest of the world, while complaints about government transparency were eased by allowing foreign businessmen to participate in government advisory and standards-drafting committees.

Foreign participation in the economy became a policy objective. Government procurement procedures were opened up and foreign firms invited to qualify. Foreign investment into Japan remained a priority — with the result that overseas direct investment in Japan jumped 136% in FY1986-87 alone. Foreign lawyers were given permission to work in Japan. Foreign insurance companies were encouraged to enter the market. Foreign banks were licensed to enter the potentially lucrative trust banking business and foreign securities companies admitted as members of the Tokyo Stock Exchange.

PRODUCTION BEGAN SHIFTING OVERSEAS

Matching the opening of the Japanese economy in the 1980s, has been the dramatic rise in direct overseas investment from Japan — more than a tenfold increase since 1980. Countries such as Thailand, Singapore and Malaysia experienced an investment boom in the late '80s, as Japanese companies and their suppliers sought to reduce costs by shifting production offshore — with much of the output heading back to Japan.

New more aggressive marketing is helping to expand sales of U.S products in Japan.

The largest share of Japan's overseas investment has gone to the U.S., in effect helping to reindustrialize the U.S. economy. By early '90s, Japanese automobile makers are expected to produce 1.7 million units annually in the United States, with a 70% local content. This should create a total of 110 thousand jobs and cut the current U.S. trade deficit with Japan by almost $10 billion.

DOMESTIC DEMAND NOW POWERS THE ECONOMY

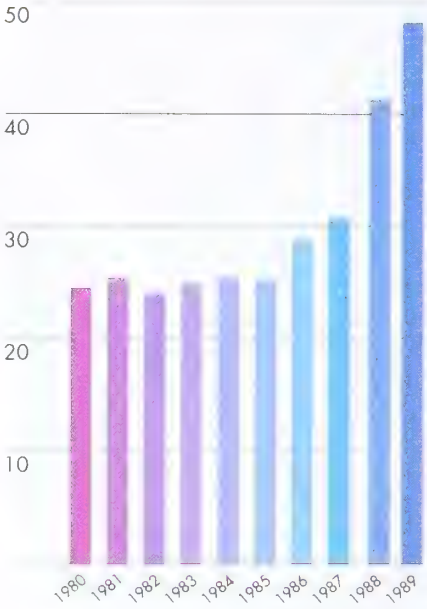
Increased offshore production has meant a reduced rate of export growth, if not actual declines in exports for many Japanese companies. In macroeconomic terms, since 1985 all of Japan's growth, which has averaged 4.5% a year in real terms, has come from domestic demand. Although the savings rate remains high, household consumption has jumped by 29.2% between 1980 and 1988, despite low inflation.

In other words, the basic nature of the Japanese economy began to change in the 1980s. This structural adjustment took place in parallel with an intense intellectual debate, encouraged by the government, which sought both to build a consensus for change and map its future course.

Across the decade one study group after another, both at the national and ministerial level, issued reports. The more famous, such as those chaired by Saburo Okita and Haruo Maekwa, received some international media coverage. But not much, because the debate seemed arcane and peculiarly Japanese. That is unfortunate, because many of the principles espoused by these reports — such as internationalization and deregulation — now play a key role in government and corporate policy making.

JAPAN BUYS MORE FROM THE U.S.

Millions of dollars



Source: Ministry of Finance.

Indeed, it was this Japanese-made roadmap for economic structural improvement that gave direction to the U.S.-Japan Structural Impediments Initiative (SII) talks, in which the two governments talked on structural issues affecting both Japan and the United States.

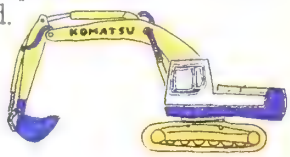
The process to achieve structural improvement will take time. As the late Haruo Maekawa remarked in 1987: "Everybody knows that implementing the report will not be easy: all the easy things have been done." But economic liberalization will continue and it will pay big dividends.

Hello, neighbor.

We're all neighbors in the global community. Learning how to fit into the local fabric of the community is part of being a good neighbor.

At Komatsu, we make construction and industrial machines such as excavators, robots, lasers, presses: tools for a better life. At the same time, we make it our business to work for the good of the community. We support local partnership in business operations, joint ventures, trade exchanges, service programs: cooperation for a better world.

We don't know how the world will change in a decade, or even a year. But we believe that cooperation between neighbors can add harmony to the great pattern of life.



Cooperation for a better world.

KOMATSU

Head Office. 2-3-6 Akasaka, Minato-ku, Tokyo 107, Japan
Phone (03) 5561-2617 Facsimile. (03) 505-9662

THE GOAL IS GENUINE INTERNATIONALIZATION

The Response of Japanese Business to a New Global Environment

A test engineer checks digital VCR performance at Matsushita Applied Research Laboratory in Secaucus, New Jersey.

The early 1980s confirmed the roles of Japan and Japanese business in the world economy. By the second half of the decade, however, the roles both play began to change dramatically. The 1985 Plaza Accord and the process of market liberalization — however slow that might seem to outsiders — transformed Japan into a growth pole at least for the Pacific Rim.

At the same time, mounting trade friction and the rising value of the Japanese yen reshaped corporate thinking about how and where products should be made. "Domestic operations are important," observes Hitachi President Katsushige Mita, "but in a world of increasing global interdependence, we must expand overseas production."

Increasingly companies shifted from Japan's traditional export orientation, moving production offshore. For basic components, the choice was often low-wage areas such as the ASEAN countries of Southeast Asia; for other products the goal often was to be as close as possible to the ultimate market.

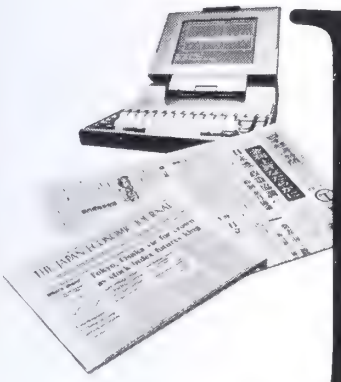
Powered by this new business thinking, Japan's overseas direct investment made nearly a five-fold leap between 1984 and 1988, reaching US$47 billion. The impact of this surge was enormous. In the late '80s Japanese investment effectively doubled the industrial capacity of the six ASEAN countries and revitalized many sectors of U.S. and European industry.

Major Japanese companies now operate on a global scale. Hitachi runs 47 manufacturing subsidiaries worldwide and it has more than 130 sales and service companies. Outside Japan NEC has 25 manufacturing and 44 marketing and service subsidiaries; their employment totals 22,000.

There are other examples as well. Half the cameras Ricoh sells are made outside Japan. Nearly 100% of the copier supplies it sells in North America and Europe are produced there. Almost a third of Matsushita's international sales come from overseas factories. By 1993 the company intends to increase that figure to 50%.

The task now is to go beyond offshore manufacturing. It is, suggests Mitsubishi Kasei President Masahiko Furukawa, to achieve the kind of "genuine internationalization" that will be needed for the "boundaryless world" of the '90s — to borrow a concept from Kenichi Ohmae's

Access Japan



For the inside story on Japanese business, one source stands above the rest. The source *most* Japanese business leaders consult each and every day. NIKKEI.

NIKKEI is many things to many people. It's *The Nihon Keizai Shimbun* (Japan's leading business daily) and specialized papers in marketing, finance and industry. It's realtime, online databases (in both English and Japanese). It's the NIKKEI Average, a daily price index of the top stocks on the Tokyo exchange. And it's *The Japan Economic Journal*, a weekly English-language newspaper that focuses on Japanese business. Plus much, much more.

NIKKEI. It's the business information network that offers direct access to world-class profits for years to come.

NIKKEI

Nihon Keizai Shimbun, Inc. 1-9-5 Otemachi, Chiyoda-ku, Tokyo 100-66, Japan Tel: (03) 270-0251 Telex: J22308 NIKKEI
Nihon Keizai Shimbun America, Inc. *New York Office:* Suite 1802, 1221 Avenue of the Americas, New York, NY 10020 U.S.A. Tel: (212) 512-3600
Los Angeles Office: 725 South Figueroa Street, Suite 1515, Los Angeles, CA 90017 U.S.A. Tel: (213) 955-7470
Nihon Keizai Shimbun Europe Ltd. *London Office:* Bush House, North West Wing, Aldwych London, WC2B 4PJ, U.K. Tel: (071) 379-4994
Frankfurt Office: Kettenhofweg 22, 6000 Frankfurt/M 1, West Germany Tel: 069-720214

For further information on Nikkei, just fill out this coupon and mail.

Planning & Research Dept., Nihon Keizai Shimbun, Inc., 1-9-5 Otemachi, Chiyoda-ku, Tokyo 100-66, Japan **BW-7/90**

Your Name _____ Company _____ Position _____

Address _____ City _____ State _____ Zip Code _____

In medicine, a good image is imperative.

Hitachi MRI systems can help save lives.

Many people think of Hitachi as a consumer electronics company. Which is true – to a point. We're also a technological leader in medicine. Business equipment. Science. Industry. Computers. Telecommunications.

Our 20,000 products include everything from TVs and power plants to image processing equipment. Such as facsimile machines and magnetic resonance imaging (MRI) systems.

Take MRI. It's the most significant advancement in diagnostic imaging since the X-ray. By constru ing internal images of the human body, MRI enables doctors to detect problems early on and make more accurate diagnoses. In other words, MRI can help save lives.

Hitachi is a world leader in high-resolution, compact MRI equipment. What's remarkable, ho ever, is that MRI equipment only begins to tell th story of our commitment to medicine.

Our involvement encompasses clinical

The same goes for business.

Hitachi HIFAXs build businesses.

zers. Electron microscopes. X-ray CT scan-
And ultrasound equipment.
hances are you already use Hitachi facsimile
ines. You'd be in good company. Some of the
's most respected companies put our image
ssing technology to work every day.
ou see, our unique technological advance-
s enable business people to quickly and
ently transmit super clear photographs, charts,
ments and graphs. Even very small characters
come out with a remarkable high degree of
precision.

Taken together, Hitachi is a people company.
Responding to the wants and needs of individuals
everywhere.

And that's not an advertising image. That's a fact.

HITACHI

Hitachi, Ltd. Tokyo, Japan

influential best-seller *Beyond National Borders: Reflections on Japan and the World.*

STRATEGY #1: INCREASE LOCAL MANAGEMENT CONTROL

Toward this end a number of Japanese companies have begun devolving decision-making authority on regional headquarters. Last year Toshiba went "tri-polar," completing a regional management structure based on Singapore for Asia outside Japan, Europe and the United States. "In each area are manufacturing, sale and some R&D," says Toshiba Senior Executive Vice President Kinichi Kadono. "We have established a new basic system which will change the way we do business."

Matsushita Electric Industrial has a similar structure, with regional headquarters in New Jersey for the United States, London for Europe, and Singapore for Asia. "Most local decisions are now made locally," explains company President Akio Tanii, "and the top men at all three headquarters are main board members." Again each region has manufacturing, marketing as well as product-related R&D capability, and Matsushita plans to develop some basic research facilities as well.

Omron is a company just starting out on this path. It created four global management zones based on Japan, Europe, North America and Asia-Pacific. During the first half of the '90s, it plans to invest in the infrastructure, personnel and finances of the three non-Japanese zones, centering on local managers, rather than Japanese. "When we're sure they can function, we'll give them autonomy," says President Yoshio Tateisi. "By the year 2001, I'd like to see four independently-managed Omrons!"

STRATEGY #2: INCREASE LOCAL CONTENT AND GLOBAL SOURCING

There is little to be gained in moving manufacturing offshore, if production is dependent on expensive parts from Japan. Not only that, but those part imports themselves become a source of friction and generate the misguided notion that the Japanese build only screwdriver assembly plants.

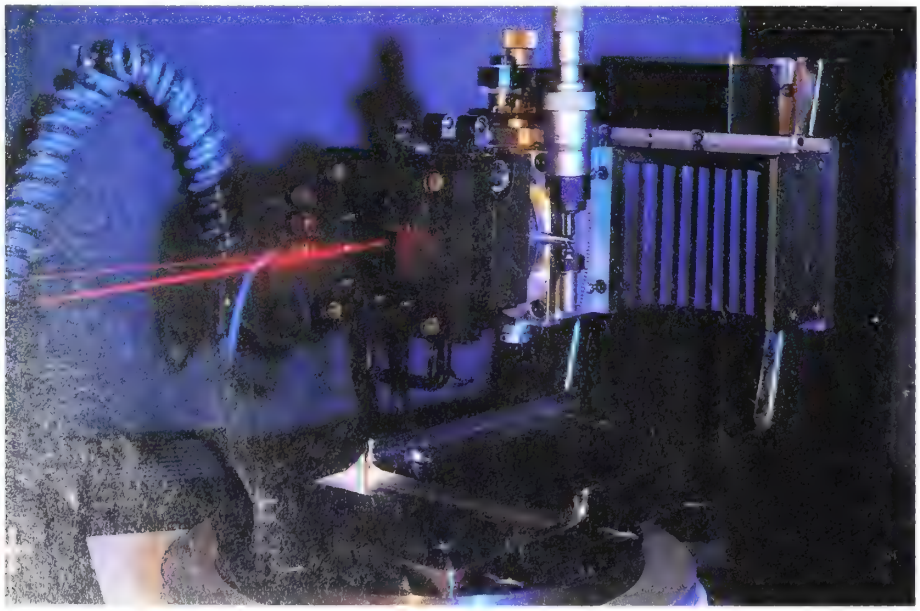
"Increasing local procurement is one of our most important goals for the 1990s," says Matsushita's Tanii. Right now the rate varies enormously. In South America, Matsushita manufactures air conditioners that are 100% locally sourced.

Mazda Research & Development offices in Irvine, California.

In the U.S. its microwave ovens are only 50% local and VCRs 40%. "These are more complex products," explains Tanii, "and it is not easy to get recording heads and precision-purpose LSIs. Matsushita's goal for the U.S.," he continues, "is to achieve an average 70% local content by 1993."

Ricoh President Hiroshi Hamada has given much thought to localization over the years and drawn up a six-stage process to achieve it. This step-by-step approach has decreased Ricoh's export ratio (the proportion of its Japanese production exported) to a mere 31.6%. Ricoh has also put increasing emphasis on increasing local content, according to Hamada. One of its three California plants makes components for the other two.

NEC President Tadahiro Sekimoto sees increasing local content as part of a much bigger picture. "Initially," he says, "Japanese companies followed the familiar pattern of 'linear globalization,'" where overseas operations related exclusively to headquarters in Japan. Now he sees a 'mesh-type globalization' emerging, in which individual units operate with increasing autonomy, dealing with each other on the basis of what is



NEC's latest measuring system for laser diodes

A member of MITSUBISHI COMPANIES

We're the brains behind the best brains in the world.

Some pretty amazing products and technologies come from chemicals. We should know. We're Japan's largest integrated chemical company.

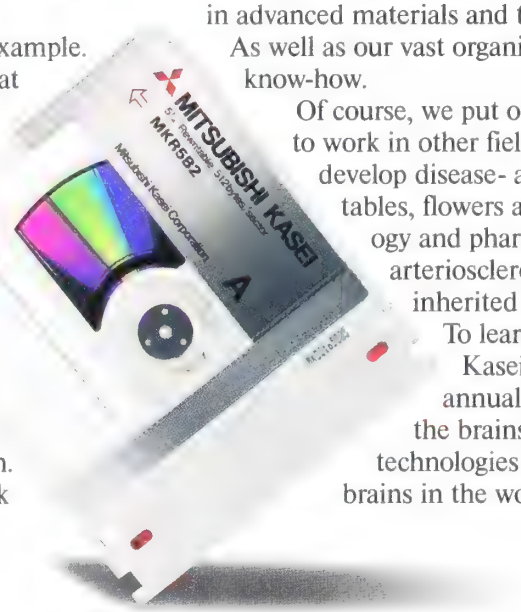
Information and electronics are one such example.

Mitsubishi Kasei is the only corporation that manufactures floppy, hard and optical disks.

Our floppy disks enjoy a large market share and are considered among the best in the industry. We manufacture and market them around the world through Verbatim Corporation.

The heart and soul of any computer is the hard disk. We developed a hard disk that consists of an aluminum alloy disk sputtered with a cobalt-based magnetic substance. It's a major breakthrough.

Without a doubt, the optical disk is the disk of the future. It combines portability with the ability to store hundreds of megabytes of data. Our expertise here stems from our integrated knowledge in advanced materials and thin film technologies. As well as our vast organic and photochemistry know-how.



Of course, we put our chemical experience to work in other fields. In plant genetics, we develop disease- and insect-resistant vegetables, flowers and grains. In biotechnology and pharmaceuticals, we fight arteriosclerosis and genetically inherited diseases.

To learn more about Mitsubishi Kasei, call or write for our annual report. You'll see we're the brains behind products and technologies that enable the best brains in the world to shape tomorrow.

MITSUBISHI KASEI

Mitsubishi Kasei Corporation (Formerly "Mitsubishi Chemical Industries Limited") Head Office 5-2, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100, Japan Telephone 03-283-6274 Facsimile 03-283-6287 Telex BISICH J24901

9113
9113
UNION
PACIFIC

HOW FUJITSU HELPS A LEGENDARY RAILROAD MAKE HISTORY.

The Union Pacific Railroad is not just a company, it's a call to the consciousness of a nation. Created by Abraham Lincoln's signing of the Pacific Railroad Act of 1862, it laid tracks across a wild continent from Omaha, Nebraska to Promontory, Utah, where it met the Central Pacific coming from the sea. A golden spike marked the birth of America's first transcontinental railroad.

SETTLED THE AMERICAN WEST

Union Pacific settled the American West, carrying hundreds of thousands of pioneers into the world of wide open spaces. It made history then, and it's *still* making history: today it is one of America's most progressive railroads, with 23,000 miles of track in 20 states, 30,000 employees, and a reputation for far-sighted thinking in every area of its operations—including its remarkable communications network.

NATIONWIDE NETWORK

Union Pacific owns a private voice and data communications network, one of the largest in the world. Covering tens of thousands of miles nationwide and functioning as the railroad's central nervous system, it is extremely sophisticated and absolutely crucial to the company's success. Which is why, when Union Pacific recently decided to upgrade the network, it turned to Fujitsu.

TOP COMPUTER AND COMMUNICATIONS MAKER

Fujitsu is one of the world's top computer and telecommunications makers, with 100,000 employees, annual sales of $18 billion, and projects completed in a hundred countries. A high-tech giant that's a major force in the global information revolution, Fujitsu gave Union Pacific a multi-nodal integrated voice and data communications system that is the next generation of business telecommunications. The system will boost productivity, upgrade customer service, and help the railroad keep making history—by helping it be what it has always been: a living legend that knows where the future is.

Jim Merrick of Union Pacific talks to Jay Schrimpl of Fujitsu before the Fujitsu F9600 ISDN switching system. Union Pacific recently purchased a number of such systems, one of the most advanced in the world, to function as node points in its nationwide communications network. For information call Fujitsu Business Communication Systems at 1-800-654-0715.

FUJITSU

The global computer & communications company.

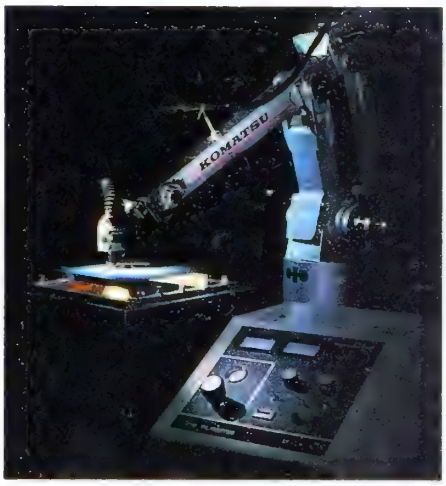
most efficient. "Decentralization is just beginning," he says.

STRATEGY #3: GLOBAL TIE-UPS

One of the many benefits of globalization for Japanese companies is protection from currency fluctuations. Komatsu was hit hard by the strong yen in the late '80s. The company has overcome this disadvantage by establishing strategic alliances overseas which allow it to shift production abroad easily.

In the U.S. Komatsu has a joint venture with Dresser Industries. In Europe it is linked with Hanomag, which has 20% of the German wheel-loader and bulldozer market. Komatsu also has ties with Korea's Samsung Shipbuilding and Heavy Industries. It has begun importing sheet metal parts from its Indonesian joint venture. It also has a long-standing agreement with Robbins from the U.S. on underground machinery.

In an effort to increase the domestic content of its products being manufactured overseas, Komatsu buys diesels for its machinery from Perkins Engines and Cummins Engines for use in such products. In addition, Komatsu sources for Japan articulated dump trucks from Britain's Brown Group International; backhoe loaders from Italy's FAI S. P. A.; and lumbering equipment from Canada's Timberjack.



Komatsu has been involved in the development of intelligent robotics systems.

CASE STUDY

Mitsui Taiyo Kobe Bank Merger Strengthens Global Capability

This April Mitsui Bank completed a merger on an equal partner basis with Taiyo Kobe Bank, creating Japan's and the world's second largest bank. The new Mitsui Taiyo Kobe Bank has assets of more than $400 billion and deposits on the order of $300 billion, making it roughly twice the size of the biggest North American and European banks.

Domestically, the merger joins the two banks' enormous strengths in corporate finance and foreign exchange as well as expertise in the automation of banking services.

Equally important, because of the diverse historical roots of the two merging banks, Mitsui Taiyo Kobe Bank has the largest and best-balanced branch network throughout Japan of any Japanese bank. Although some rationalization is inevitable and desirable, the new bank combines Mitsui's 235 branches with Taiyo Kobe's 364.

Overseas, Mitsui Taiyo Kobe begins life with 101 offices in 31 countries. In the U.S. it has a presence in New York, Chicago, Los Angeles, San Francisco, Seattle, Detroit, Atlanta, Houston and Lexington, Kentucky. In Europe, the bank operates directly in Spain, France, the United Kingdom, Belgium, Germany, Italy, Luxembourg, Switzerland and Turkey. In addition, it has an affiliate bank in Hungary, giving it an important window on the emerging Eastern European market.

The rationale for the merger can be summed up in two words: liberalization and internationalization. Both partners recognized that in the global financial market place there was competitive value in combining their expertise and respective strengths in an increasingly diverse marketplace to meet customer need.

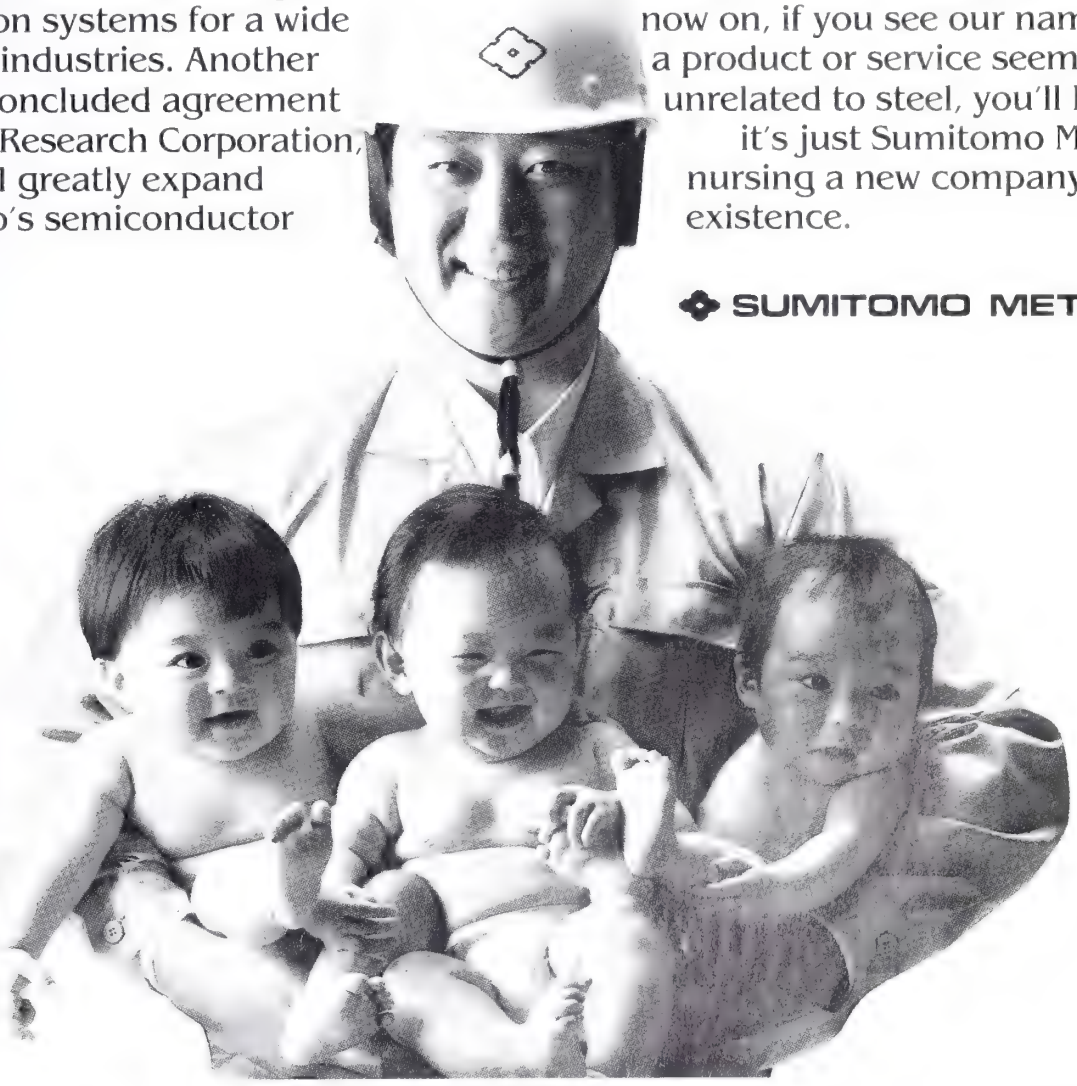
For international customers, especially for international customers coming to Japan, the merger means that the bank will be better able to service both business and advisory needs. With its branch network, it is plugged into what is happening in the Japanese economy. More, given its leading position as a representative commissioned company for domestic bond issues, Mitsui Taiyo Kobe Bank is superbly positioned to help foreign borrowers tap the Tokyo capital market.

Who'd have expected a steelmaker to provide a fertile environment for creating new businesses?

Most people know Sumitomo Metals as one of the world's leading steelmakers. But what isn't often widely known is that Sumitomo Metals also has a reputation for nursing new companies into existence – many as joint ventures – in a wide range of fields that include health care, information, communications and electronics. Sumitomo Metal Information Systems Corporation, our joint venture with IBM Japan, Ltd., for example, will develop and service strategic information systems for a wide variety of industries. Another recently concluded agreement with Lam Research Corporation, U.S.A., will greatly expand Sumitomo's semiconductor equipment operations. And we've also moved into the medical and biotechnology business by establishing SMI-Bristol Co., Ltd., a competitor in the rapidly growing field of clinical testing in Japan.

But don't misunderstand. Sumitomo Metals hasn't forsaken the steel business. Our search for steelmaking excellence will continue. In fact, many of the technologies propelling our new ventures are deeply rooted in steelmaking. So from now on, if you see our name on a product or service seemingly unrelated to steel, you'll know it's just Sumitomo Metals nursing a new company into existence.

SUMITOMO METALS



SUMITOMO METAL INDUSTRIES, LTD. Tokyo & Osaka, Japan

TOKYO HEAD OFFICE: 1-3, Ohtemachi 1-chome, Chiyoda-ku, Tokyo, Japan Phone: Tokyo (03) 282-6111 Telex: J22865 Fax: (03) 282-6224

3:32 PM

Jamie Conlon's first step proves NEC's laser technology can help solve infertility.

Jamie Elizabeth Conlon is living proof of the great strides medicine is making towards reducing America's rising infertility rate.

Twelve years before Jamie's birth, Claire Conlon experienced a series of medical difficulties that convinced her she would never bear children. But in October of 1987 she was told that Contact Laser™ surgery might correct her problem. Two months later she was pregnant.

This miracle was made possible through the help of an NEC laser. The laser's superior quality and high precision contributed greatly to the success of Mrs. Conlon's surgery. And its easy adaptability to non-medical applications has made it the most widely-used laser on the market today.

NEC's advanced laser technology is just one of the ways we're improving people's lives. You'll find the quality products of NEC in corporations large and small. In public and private institutions. In homes across the country. Helping people at every step along the way.

For more information, call us at 1-800-338-9549.

NEC

Quality That Proves Itself.

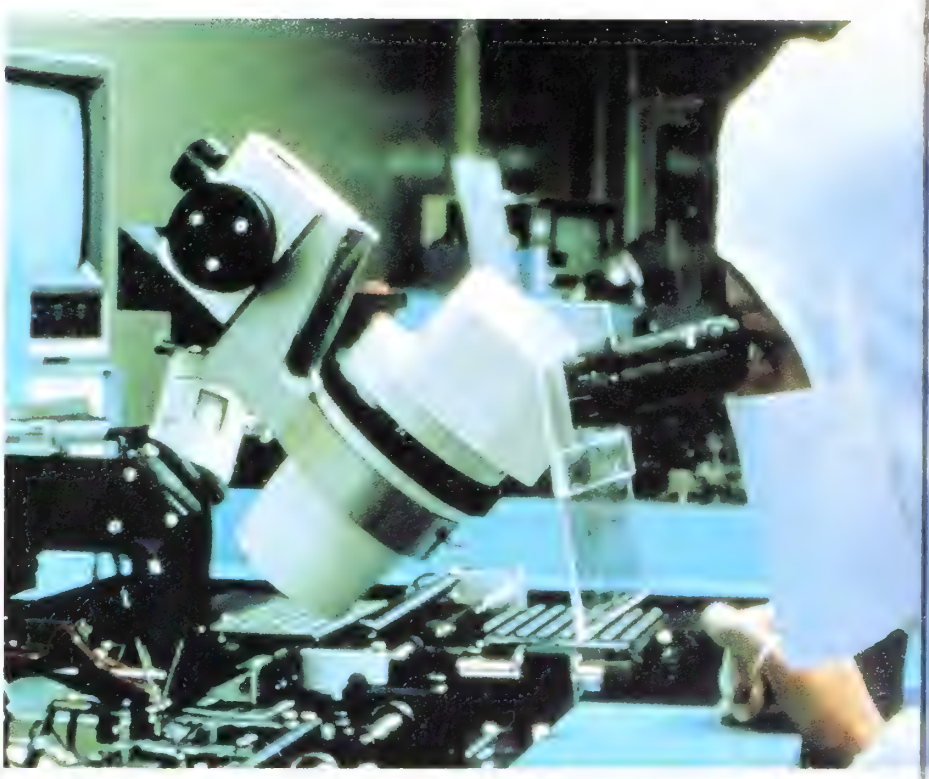
Communications • Computers • Electron Devices • Home Electronics

Contact Laser is a trademark of Surgical Laser Technologies, Inc

PE A ADVERT S NG ECTION

IN THE U.S. THE QUESTION NOW MUST BE, "WHO IS US?"

Japanese Companies Seek to Contribute to America



Early this year, Harvard scholar Robert Reich asked readers of the Harvard Business Review, "Who Is Us?" He compared a "hollowed out" U.S.-owned corporation, which had pushed much of its manufacturing and even its R&D offshore, with a foreign-owned company that had brought manufacturing, marketing and research jobs to the United States. Which, he questioned, is more important to U.S. economic vitality and competitiveness?

For the U.S. Japanese corporate investors bring capital, production skills and technology; they create jobs; they replace imports; they generate exports; they encourage the development of new skills.

STRATEGY #1: INCREASE U.S. PRODUCTION

This pattern will grow more important in the '90s. Ricoh is about to open its fourth U.S. factory. Hitachi has 18 U.S. manufacturing companies. At one of these, it is expanding a semiconductor wafer fabrication facility and at another it's building a new factory for color picture tubes.

Toshiba has six manufacturing facilities in the U.S. and two in Mexico. As a result, a high proportion of what Toshiba sells in the U.S. is made there, including 80% of the TVs. "We do not sell any products brought directly from Japan," says Senior EVP Kadono. "We'd like to produce our products as much as possible in the U.S."

STRATEGY #2: DEVELOP AN R&D BASE

There is a logical progression from manufacturing to R&D. It begins with placing a design division in plants to keep up with product changes and later create new products. Ricoh does that. Toshiba's Tennessee TV plant designs TVs, including those exported to Japan. The next step is the establishment of product-oriented R&D labs. Matsushita has a network of such facilities including

Top left: Hitachi is moving to provide overseas bases [illegible] integrated semiconductor production capabilities.
Bottom right: Ricoh expects facsimile markets worldwide to continue to grow solidly.

s for digital communications, speech cognition, digital image processing, V and software for retail and factory tomation.

Mitsubishi Kasei does this type of ap-ed research in most of its U.S. facto-s. Toshiba does the same in California th communications and information ocessing equipment. Fujitsu conducts ecommunications product R&D in rth Carolina.

Fujitsu's R&D facilities in the U.S. o work closely with the company's sic and applied researchers in Japan. coh's R&D center in Silicon Valley ll handle the R&D for the controllers eded for the next generation of digital-ed office automation equipment. Sup-rted by a newly opened research insti-e, NEC's U.S. R&D effort includes Is and advanced software. "For soft-re in particular Americans are more pable than Japanese," notes NEC esident Sekimoto.

STRATEGY #3: INVEST IN U.S. TECHNOLOGY

In the U.S., one of the worst consequences of the financial excesses of the 1980s is the difficulty many small high tech companies now have in finding the financial support they need to survive. Here Japanese companies have come to play an important role.

Denver-based Intellistor had a good idea slightly too far ahead of its time. In danger of going under, Intellistor received a financial lifeline from Fujitsu as well as use of Fujitsu's new Hillsboro (Oregon) plant as a manufacturing base.

Canon USA invested in Zygo, a 20-year-old Connecticut firm specializing in fine optical and measurement equipment. "I want to support this company and keep its technology in the U.S.," emphasizes Canon USA President Hideharu Takemoto.

STRATEGY #4: IMPROVE QUALITY

If any one failing has undermined the U.S. industrial base, it was poor quality — the customer-be-damned philosophy that led to built-in obsolescence. In the '80s, many U.S. manufacturers began to borrow from Japan's experience with quality control.

Japanese companies investing in the U.S. put even more emphasis on quality. Fujitsu sends U.S. managers to Japan for quality control training. The results come not only in better yields. "The Hillsboro (Oregon) plant achieves a high level of quality," according to Fujitsu Chairman Takuma Yamamoto. Hitachi has even brought U.S. workers to Japan to present ideas on quality control.

STRATEGY #5: ENCOURAGE U.S. SUPPLIERS

One of the most fundamental differences between Japanese and U.S. manufacturers — and the main source of the "screwdriver assembly plant" charge — is that U.S. manufacturers make their own parts while Japanese rely on outside suppliers. For Japanese manufacturers come to the U.S., finding reliable suppliers has been a major headache.

According to Ricoh's Hamada, it was difficult to persuade suppliers why the plant needed 100% reliable parts. Eventually, the company had to start making some of its own components.

Canon USA's Virginia manufacturing operation has some 300 suppliers. Still, Takemoto says, "We have had to change the manufacturing system for the U.S." Like Ricoh, Canon now makes some of its own parts and inspects those it buys much more strictly. Even so, the company wants to increase local content further.

STRATEGY #6: GENERATE EXPORTS

The trend is just starting, but many of the Japanese-owned factories are beginning to export through their parents' global distribution system. Toshiba exports TVs from Tennessee to Japan. NEC currently imports products worth $100 million from its North American plants and expects that total to hit $500 million by 1993. Fujitsu sells U.S. produced telecommunications equipment in Australia and

Japan. It markets Amdahl mainframe computers in Japan.

STRATEGY #7: ESTABLISH JOINT VENTURES

Many companies still prefer to invest through joint ventures. These can be highly successful. Sumitomo Metal's JV with LTV to produce electro-galvanized steel for the automobile industry, has done so well the partners decided to build a second plant.

Komatsu's JV with Dresser in construction equipment has chalked up impressive earnings in its second year of operation on total sales of $1.5 billion. Komatsu President Katada explains the JV combines his company's technology with Dresser's management skills. Komatsu would like to bring its large press manufacturing technology from Japan, instead of exporting the products, and is looking for a U.S. company with which to work.

STRATEGY #8: STRENGTHEN LOCAL MANAGEMENT

Local management is an increasing priority with many Japanese companies. Matsushita moved control over North American operations from Osaka to New Jersey in 1988 and later appointed an American as president.

Toshiba has created a U.S. holding company to manage its five operating companies. "We're making efforts to hire managers for the holding company," says Kadono. "Some of the subsidiaries already have U.S. presidents."

NEC is another company that emphasizes the American character of its U.S. operation, NEC America. Sekimoto expresses satisfaction with the managers the company had recruited and trained.

Hitachi, too, created a holding company for its operations three years ago. "One added benefit of this," indicates Hitachi President Mita, "is that U.S. managers can now see a career ladder in front of them."

STRATEGY #9: BUILD U.S. COMPANIES

For many Japanese companies, the ultimate goal is to create in the U.S. or North America corporate groups that can

TO FULLY APPRECIATE THE ROOM OF A

© 1990 Mazda Motor of America Inc.

JAPAN
UNITED STATES
The Challenge of the '90s:
ACHIEVING THE
TRADE BALANCE

Matsushita plans to further expand import activities, particularly in high-technology components.

stand on their own feet. "We would like to provide Hitachi America with a big enough base that it could survive even if Hitachi Ltd. disappeared from Japan," explains Mita.

"Our corporate goal is to establish a fully-integrated North American operation within the worldwide group," says Canon USA's Takemoto, "with R&D, manufacturing, sales, marketing and exports. My aim for this decade is to bring these functions from Japan to the U.S. to enable Canon USA to function independently in North America. During the '90s more than 60% of our U.S. sales in business machines will be manufactured here, and we will be exporting some of our production to Japan and elsewhere."

With 1300 employees, Canon Virginia already produces copiers and laser beam printers. Canon Business Machines, based in California, manufactures electronic typewriters, facsimiles and copier supplies. In fact, the principal operations of Canon's electronic typewriter business has been shifted from Japan to California.

"We have good managers," Takemoto adds. "And we will have more American managers. But, presently, we do have five American board members."

"We have established 15 operations in North America over the last five years," notes Mitsubishi Kasei's Furukawa. "We see them as American companies. Most of the management is American, and they are doing well."

MAZDA 626, JUST STEP INTO ONE OF OUR SMALLER COMPETITORS.

Mercedes-Benz 300E

If you've been searching for the perfect family sedan, do what more and more Germans are doing. Buy a Mazda 626. A car which is actually more spacious than a Mercedes-Benz 300E.

Perhaps that explains why, in the country that's given us Mercedes-Benz, BMW and Audi, the biggest selling import car is the Mazda 626.

What, you might wonder, is inspiring so many German drivers? Mazda calls it Kansei Engineering. Our belief that the most important parts of a car are the feelings of the people inside it. For instance, our patented Twin Trapezoidal Link rear suspension system provides steering guidance from the rear wheels for a reassuring feel even during life's unexpected twists and turns.

To see what you've been missing, get your family together and try the Mazda 626 on for size.

For more information, call 1-800-424-0202.

mazda

IT JUST FEELS RIGHT.™

Joseph Jachna, *Door County*

"Vision is the art of seeing things invisible."

Jonathan Swift

The future is composed of insights reflected by what we learn today.

At Toshiba, we've been turning those insights into a tangible future for over one hundred years.

Sustaining it now with our commitment to manufacturing in the U.S. And with a wide diversity of products of the highest quality.

All of which have helped make us one of the leading electrical and electronic manufacturers in the world.

With a unique perspective that helps us imagine a better tomorrow.

In Touch with Tomorrow

TOSHIBA

Color TVs & VCRs

Computers & Printers

Copiers

CT Scanners

Digital Instrumentation

Disk Drives

Facsimile Systems

Home Appliances

Industrial Motors & Controls

Liquid Crystal Displays

Medical Tubes

MR Imaging

Nuclear Medicine

OPTO Electronic Devices

Picture Tubes

Portable Audio

Professional Video Systems

Room Air Conditioners

Semiconductors

Telecommunication Systems

Turbines & Generators

Ultrasound

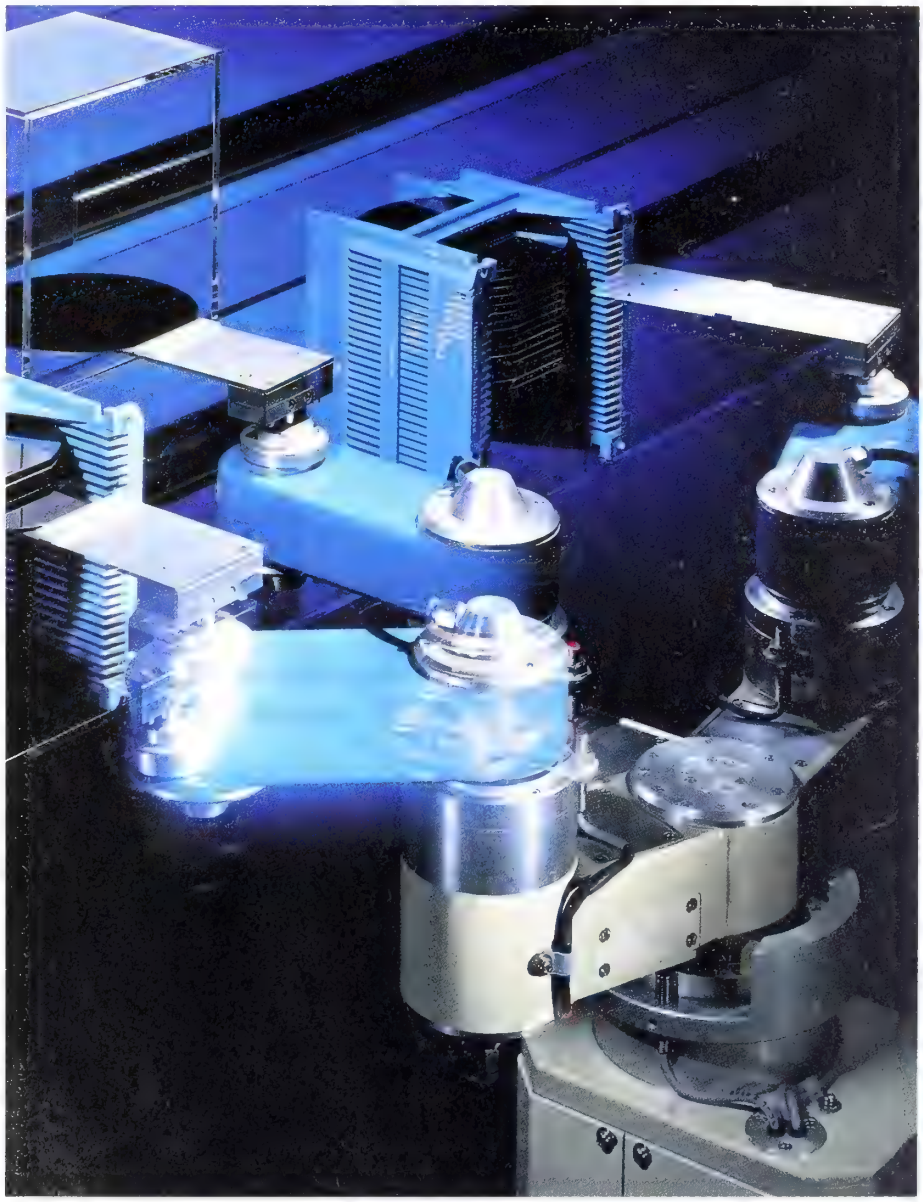
Uninterruptible Power Supply

Variable Speed Drives

X-Ray Systems

R&D HOLDS ITS IMPORTANCE

Creating Product Needs for the '90s



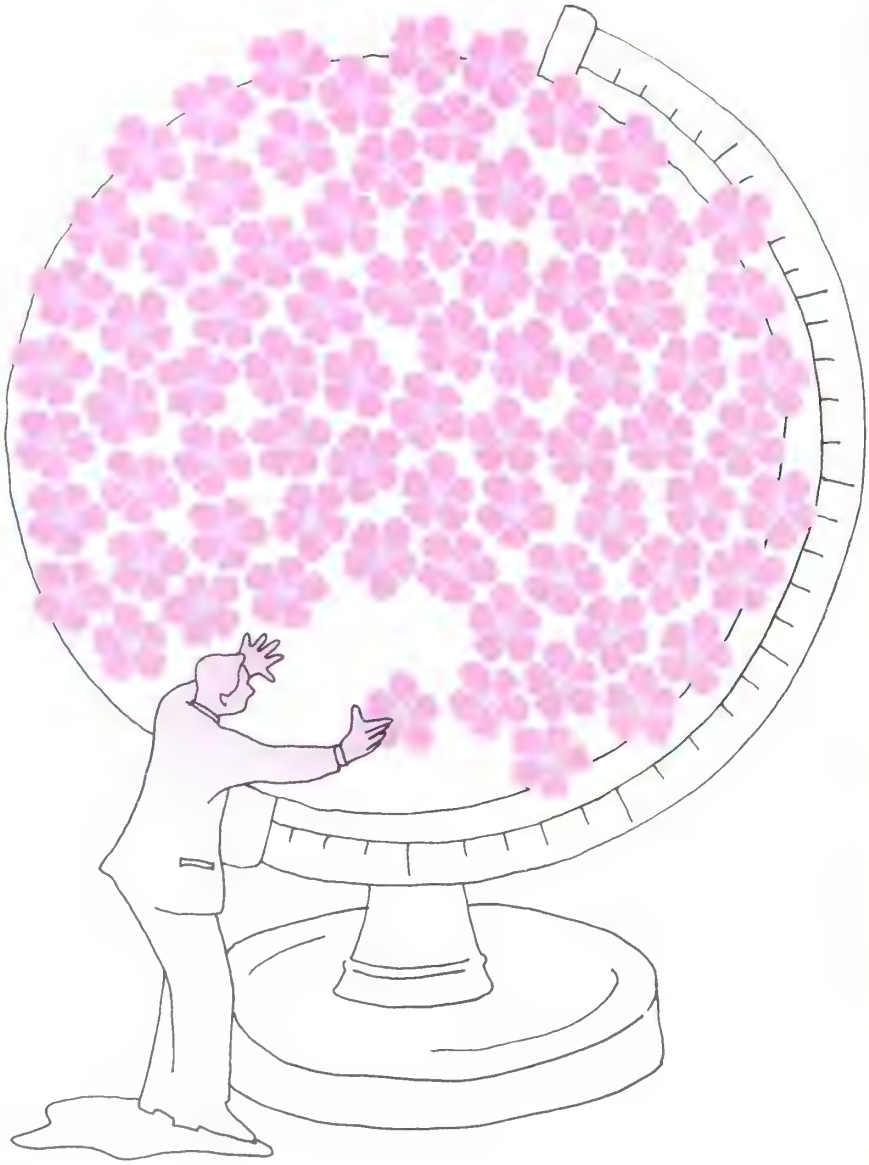
NEC's clean-room robot for handling silicon wafers used in semiconductor production.

R&D has been key to Japan's industrial success through the 1980s. Largely geared towards practical results — products and production technologies basic research was not emphasized. "Compared to the U.S., far more of those with a technical bent become industrial engineers than PhDs in the sciences," notes Toshiba's Kadono.

That is not to say that major Japanese companies do not have formidable research resources. Hitachi employs 1100 PhDs — only Tokyo University, Japan's best, can muster more.

STRATEGY #1: PROMOTING CREATIVITY

"It is essential for a manufacturer to make products that will meet the needs of the age," notes Ricoh's Hamada. "In order to produce excellent products, how-



Making a world
of difference.

World finance has a new leader and a new look.

They're Mitsui Taiyo Kobe Bank and its cherry blossom symbol.

One measure of our standing is 101 overseas offices in 31 countries. Expanded reach that's equaled by our professional range in commercial and investment banking.

It means you can draw on exceptional resources, expertise and experience. And that can make a world of difference in today's financial markets.

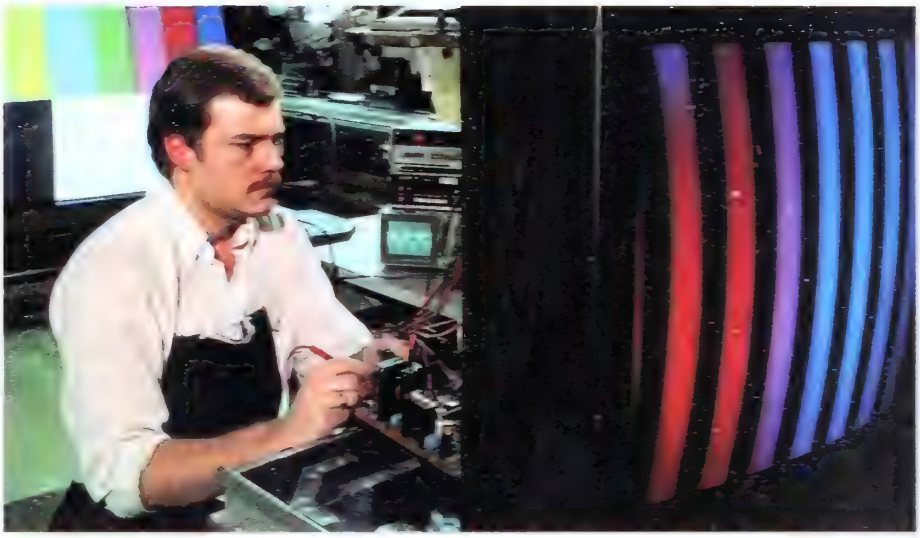
You'll be seeing more of the Mitsui Taiyo Kobe cherry blossom. Just a quiet reminder that we're ready to serve you as you grow.

MITSUI TAIYO KOBE BANK

Head Office: 3-1, Kudan Minami 1-chome, Chiyoda-ku, Tokyo 100-91, Japan

ever, you need excellent people. You must find a way to make your people more productive. That applies also to the office and to research. Our challenge in the '90s is to achieve greater productivity both in R&D and in product engineering."

Hamada warns, however, that there is no simple way to promote higher productivity in research. "But you can build a favorable office environment," he says. "The Japanese office environment is not always conducive to information systems. A new type of management system is needed to fully develop the creativity of employees. As a company Ricoh will have to invest more money in individuals. There is no way to separate the environment issue from management."



Toshiba plant in Tennessee produces color TV's for the U.S. and world markets.

A Nose for Taste

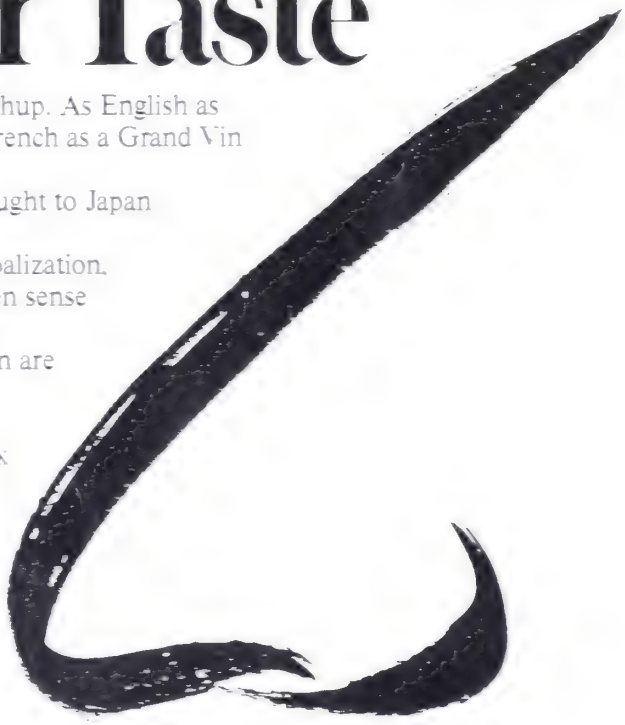
Tastes as American as Del Monte tomato ketchup. As English as Lea and Perrins Worcestershire sauce. And as French as a Grand Vin Bordeaux.

The favored flavors of the West have been brought to Japan by Kikkoman Corporation.

Three centuries' experience, early market globalization, and consumer involvement give Kikkoman a keen sense for successful cross-cultural marketing ventures.

Further testimony to leadership and innovation are Kikkoman's far-ranging biotechnology and food development activities.

So the next time you think of Kikkoman, think again. We're a whole lot more than soy sauce.



KIKKOMAN

Kikkoman Corporation

Production facilities: Japan, USA and Singapore; Subsidiaries: Hawaii, Canada, West Germany, Hong Kong and Australia

CASE STUDY

Omron Looks To The Golden '90s

Omron, formerly Omron Tateisi Electronics, has long combined high-tech leadership with a humanistic approach to management. Within Japan the company is famous for the sabbaticals it offers middle and senior managers.

For the coming decade Omron has embarked on its Golden '90s program. Designed to achieve harmony between man and machine, the program seeks to use technology to build what the company calls the "Optimization Society" — a society where better living and working conditions encourage creativity.

Much of this vision centers on Japan, where Omron President and CEO Yoshio Tateisi says many things must be changed — from inadequate housing and poor communications to overtime and long hours.

Employees have sacrificed themselves for their companies," he says. "It is time to turn this around so that people can take the leading role in national growth. It is the responsibility of management to create conditions for people to be creative. That is the challenge we have to match in the '90s and the 21st century."

What makes Omron's Golden '90s program realistic is the company's strong technology base. Long a major player in automation, Omron has built up expertise in other information-intensive fields, including medical equipment, computers and office automation. "We aim to pursue this track until we achieve the technological breakthroughs needed to bring machines close to and beyond human capacity," Tateisi says.

Key to this effort is "fuzzy technology." Already employed in Omron's FZ-1000 fuzzy controller, this technology could revolutionize robotics as well as environmental controls, where single numerical values need not or cannot be used.

An Omron automated teller machine in New York City.

Where the business elite meet in Tokyo.

Where else but at the Hotel Okura? With its elegant accommodations, incomparable service, renowned restaurants and premier location, it's everything a world-class hotel should be.

Hotel Okura
TOKYO
TEL: (03) 582-0111 TELEX: J22790 FAX: (03) 582-3707
one of The Leading Hotels of the World
See your travel agent or our hotel representatives
The Leading Hotels of the World:
Tel 800-223-6800 Toll Free. 212-838-3110 Collect
R.F. Warner, Inc., New York
Tel 800-888-1199 Toll Free
J.A. Tetley Co., Inc., Los Angeles
Tel 800-421-0000 Toll Free. 213-388-1151

Hamada wants Ricoh's Central Research Laboratory to provide a challenging environment. This is key to developing new technology. "All management understands we have to create products based on new technology," Hamada says.

STRATEGY #2: STRATEGIC ALLIANCES

Alliances can take many forms. Often they are production joint ventures — Mazda and Ford produce each others models and Mazda distributes Fords in Japan.

Fujitsu is another company with considerable experience in global tie-ups. Its engineers worked closely with Sun Microsystems' to develop a new microchip for Sun's workstations.

Fujitsu's Malaga Plant in Spain significantly boosts manufacturing capabilities.

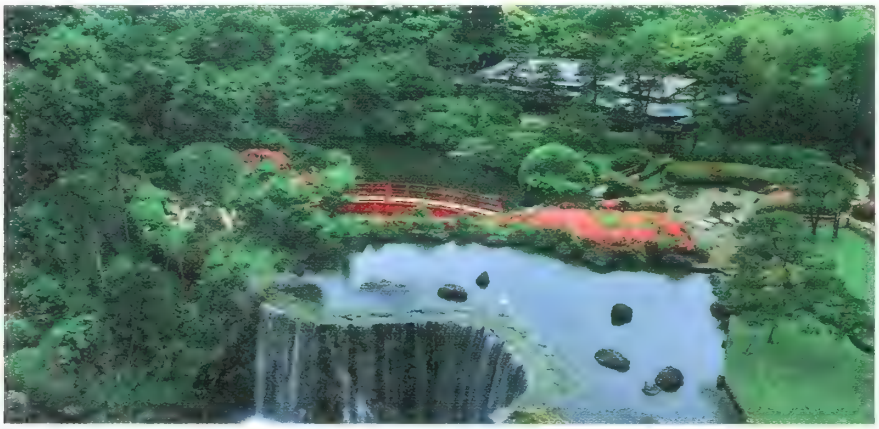
Fujitsu also works closely with Amdahl, ICL and Siemens. It also has a project in China looking at software for switching systems. "Through strategic alliances, we can share technology and joint development," comments Fujitsu Chairman Takuma Yamamoto.

"In the case of Amdahl," Yamamoto continues, "we share the cost of developing Amdahl's mainframes, which Fujitsu also markets in Japan. Fujitsu gains market information; Amdahl gets access to the Japanese market and understanding of how to deal with Japanese customers."

STRATEGY #3: INTEGRATING TECHNOLOGY

NEC's C & C slogan — computers and communications — epitomizes another important strategy for Japanese companies in the 1990s — integrating technology.

There are other dimensions. "If we look toward the 21st century," remarks Mitsubishi Kasei's Furukawa, "most of the industries where we are operating have a meeting point — chemicals in information technology, pharmaceuticals, including biotechnology and bioengineering, as well as new materials. That's one reason why we put so much of our R&D resources into these areas."



Only one hotel in Tokyo has a 400-year-old decompression chamber.

Tokyo is one incredibly fast-paced city. But you can still get away from it all. Just stay at The Hotel New Otani. And escape the pressures of the fast lane in our 10-acre, 400-year-old Japanese garden. Over the years, leaders of industry and government from many nations have walked its peaceful pathways. The New Otani. There really is no place like it.

U.S. & Canada Toll Free (800) 421-8795 (outside CA, HI, AK), (800) 252-0197 (in CA only), **New York** (212) 308-7491, **Los Angeles** (213) 629-1114, **Honolulu** (808) 923-1555, **London** (071) 734-4231, **Tokyo** (03) 221-2026, **Osaka** (06) 941-7021, **Hong Kong** 5-292723, **Singapore**

The New Otani
HOTEL NEW OTANI

TOKYO · OSAKA · LOS ANGELES · HONOLULU · SINGAPORE · BEIJING · SOFIA

日経ビジネス 1990
NIKKEI BUSINESS

When it comes to getting your message across in Japan, NIKKEI BUSINESS is the medium of choice for international concerns. Foreign companies account for fully one third of its advertising. Why? Because this bi-weekly magazine is targeted at 250,000 of the nation's leaders and decision-makers in senior and middle-management levels. So make your mark where it matters. Advertise in NIKKEI BUSINESS.

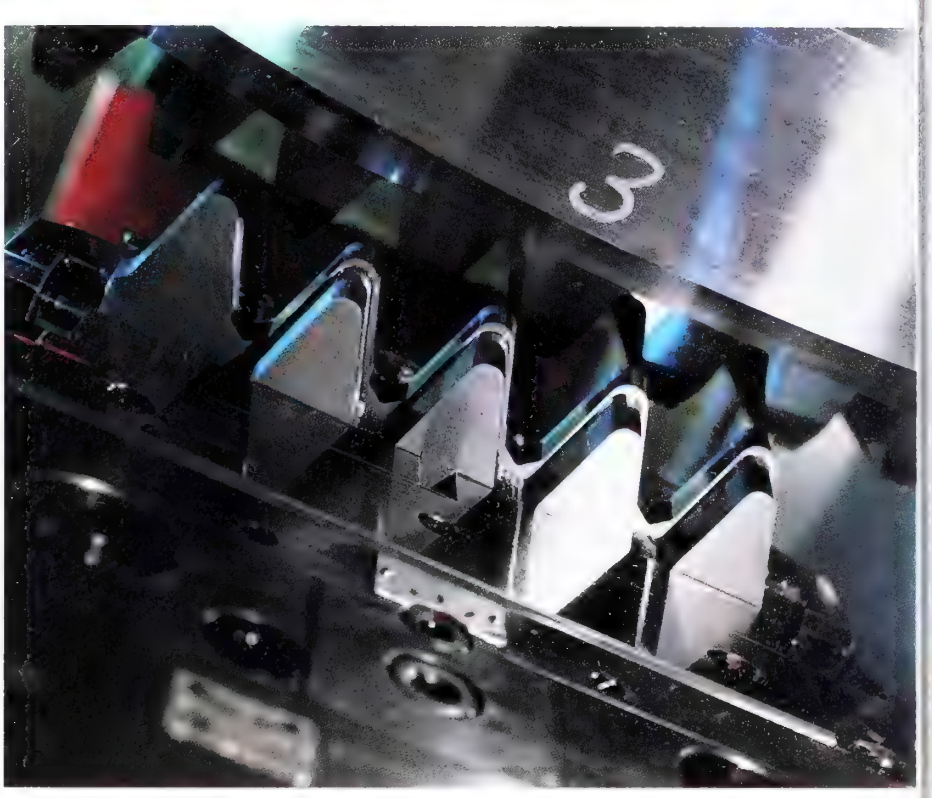
Make Your Point in Japan with Nikkei Business

For further information, please contact:
New York: U.S. Sales Office, Nikkei Business Publications, Inc. 36th Flr, McGraw-Hill Bldg., 1221 Avenue of the Americas, New York, NY 10020 Tel:(212)512-4455 Fax:(212)512-4381 Tokyo: International Advertising Sales, Nikkei Business Publications, Inc. 3 Mitoshirocho, Kanda, Chiyoda-ku, Tokyo 101. Japan Tel:(03)233-8311 Fax:(03)219-7354

Japan's Leading Business Magazine
日経ビジネス
NIKKEI BUSINESS

IF THE COMPANY DOESN'T FIT, CHANGE IT

Remaking Successful Companies



Gear with high transmission efficiency that moves smoothly, powerfully and quietly ...ped by Sumitomo Metals.

Looking back at the 1980s, perhaps the single most impressive accomplishment of Japanese business has been the success so many Japanese companies have had in adapting to a changing business environment.

STRATEGY #1: CHANGING DIRECTION

Many of the most impressive examples of such adaptation involved a dramatic shift of business direction. This process was not like the growth-by-acquisition that created conglomerates in the U.S. during the '60s and '70s. Rather, those companies that have addressed the need for change have done so in a highly-focused, well-planned way, moving from low-growth to high-growth industries.

Sumitomo Metal Industries is one of the best examples. Facing deteriorating market conditions in the steel industry, three years ago it set out to broaden its base by moving into new materials, electronics, systems integration and biotechnology.

It made strategic acquisitions and began entering into joint ventures — a total of ten so far. Often these JVs are with U.S. companies or their Japanese subsidiaries. Sumitomo Metal, for example, has joined Bristol-Myers Squibb in health care and IBM in systems integration. "We would like to have more joint ventures in areas where U.S. companies are ahead," notes company President Yasuo Shingu.

By the end of fiscal year 1989-90, 15% of Sumitomo Metal's sales were in its new business lines. "I believe we reached our original objectives," Shingu comments. Now the task is to go further: by 1993 Sumitomo Metal projects to have 24% of its sales from new business, by 1995 33% and by 2000 50%.

"To bring about this kind of change what is the most important thing to do?" Shingu asks. "All employees — whether

NOTHING STAYS THE SAME.

The world is in the midst of a financial revolution. One doesn't sit back anymore and watch contentedly as our investments shoot to the moon.

Keeping pace is no longer good enough. Neither is being one step ahead. Today we must perceive the imperceptible.

This calls for new and innovative financial capabilities. A company with all the tools of the information society. A company with consummate financial professionals who foresee transition and move swiftly with the tide.

Which is precisely the idea behind Nomura's global network. It now stretches to 54 offices in 15 countries and is backed by the Nomura Research Institute, Ltd. — one of the world's largest and most sophisticated financial think tanks.

In this new era of global finance, it is not a time to shrink back, but to expand horizons and look beyond.

Yes, nothing stays the same. Which is why Nomura seeks financial opportunities wherever they exist.

NOMURA

THE NOMURA SECURITIES CO., LTD.
Tokyo Head Office: 1-9-1, Nihonbashi, Chuo-ku, Tokyo

NOMURA SECURITIES INTERNATIONAL, INC. Member SIPC
New York Head Office: 180 Maiden Lane, New York, New York 10038

Worldwide Network
The Americas: New York, Chicago, Los Angeles, San Francisco, Honolulu, Toronto, Montreal, São Paulo
Europe: London, Paris, Amsterdam, Frankfurt, Munich, Berlin, Vienna, Zürich, Geneva, Lugano, Basel, Brussels, Milan, Stockholm, Madrid, Luxembourg
Asia, Oceania and the Middle East: Hong Kong, Singapore, Jakarta, Bangkok, Kuala Lumpur, Beijing, Shanghai, Shenzhen, Seoul, Sydney, Melbourne, Bahrain

© 1990 The Nomura Securities Co., Ltd.

THE FUTURE IS HERE

Imagination is the special gift of children. Driven by a curiosity which never sleeps, it opens towards a future of ever-expanding possibilities. At Omron the future is opening too, as we create a global network of electronics industries brought together by a single purpose: precision. Around the world, high technology is going to work with Omron...for you.

We're Building Tomorrow—Today

OMRON

- Control Components and Factory Automation Systems
- Electronic Fund Transfer Systems • Information Systems
- Health and Medical Equipment • Office Automation Systems

OMRON Corporation

Head Office: 10, Tsuchido-cho, Hanazono, Ukyo-ku, Kyoto 616 Japan
Phone: 075-465-1111
Tokyo Head Office: Omron Tokyo Building, 4-10, Toranomon, 3-chome, Minato-ku, Tokyo 105 Japan
Phone: 03-(434)-7011

OMRON MANAGEMENT CENTER OF AMERICA INC.
1375E. Woodfield Rd. Suite 520 Schaumburg, Illinois 60173, U.S.A.
Phone: 1-708-240-5330 Fax: 1-708-240-5362

OMRON MANAGEMENT CENTER OF EUROPE B.V.
Planetenweg 77, 2132 HM Hoofddorp, THE NETHERLANDS
Phone: 31-2503-62100 Telex: 44-71343 Fax: 31-2503-36-313

OMRON MANAGEMENT CENTRE OF ASIAPACIFIC PTE LTD
510 Thomson Road #10-03 SLF Building, 1129 SINGAPORE
Phone: 65-353-2611 Fax: 65-353-5391

in new businesses or steel — must be willing to accept the challenge. We have to change the corporate culture."

"That," Shingu asserts, "is easier said than done." Sumitomo Metal has already changed its personnel policy, to reward those willing to risk failure over those who play safe. It has emphasized the need for "flexible thinking." Most important, it has confirmed the change in corporate culture by drawing all its employees into the process of redefining its corporate goals. The result was the implementation plans for Sumitomo Metal's Vision 2000 strategy covering 1990-93.

Komatsu is another company that has diversified successfully. Ten years ago only 10% of its business was in non-construction equipment lines. Today the figure is 30% — represented mainly by various industrial machinery such as presses and metal forming machines, silicon wafers for semiconductors, construction contracting, business-use prefabrication houses, real estate, chemicals and plastics and software development businesses. "We put special emphasis on robotics, electronics and plastics with an eye to nurturing future key business out of these three special fields," says President Katada. "We are focusing our investment of management resources on these areas. By 1994 we expect half of our sales to be in non-construction lines," says President Katada.

While much of Komatsu's diversification has come from an internal reallocation of resources — which forced the company to change its corporate culture — Komatsu has also made strategic investments. Its recent acquisitions include Unizon, a Japanese electronic device manufacturer, while a subsidiary, Komatsu Electronic Metals purchased the polysilicon business of Union Carbide Chemical & Plastics. Komatsu also took a 26% stake in Canada's Husky Injection Moulding Systems, which will lead to the establishment of global marketing and shared manufacturing.

Mitsubishi Kasei's name is meant to suggest continuous change. It was selected to symbolize the company's goal of continuous change and adaptation.

The Hotel Okura offers state of the art equipment for guest's business needs.

Komatsu is one of the most advanced users of Flexible Manufacturing Cells for welding and metalworking.

Ten years ago 90% of the company's revenues came from oil, coke, chemicals and similar, basically simple products. The company set a target of 30% sales in more value-added products. It then plowed money into R&D in the life sciences and more than met its target. "Now Mitsubishi Kasei is looking at its next ten years, at the kind of society the world can expect in the 21st century and where, therefore, it should be headed," says President Furukawa.

STRATEGY #2: CORPORATE RENEWAL

"The biggest challenge Fujitsu faces in the 1990s," suggests Chairman Yamamoto, "is Fujitsu itself. These days a lot of companies suffer from bureaucracy and the 'big company' syndrome. What is needed is a simple structure of management and decision making."

Fujitsu has launched a corporate campaign called Exciting Fujitsu, intended to

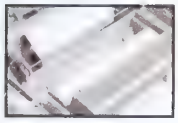
FAX1000L
Affordable Plain Bond Paper Fax

Ricoh Presents Conclusive Proof That All Fax Machines Are Not Created Equal

There are fax machines. And then there are RICOH fax machines. To see the difference, all you need to do is look at the fax.

Introducing The World's First Dual Paper Roll Fax

The world's first dual paper roll fax is the RICOH FAX105.

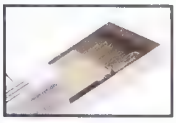


The RICOH FAX105's dual paper rolls allow you to receive oversized documents up to 11-inches wide at full size without shrinkage. Which is great for faxing documents such as ledger sheets and computer printouts. And of course the RICOH FAX105 comes with lots of other great features. Such as a 9 second transmission rate. A memory upgradable to 146 pages. And a 133-number autodialer.

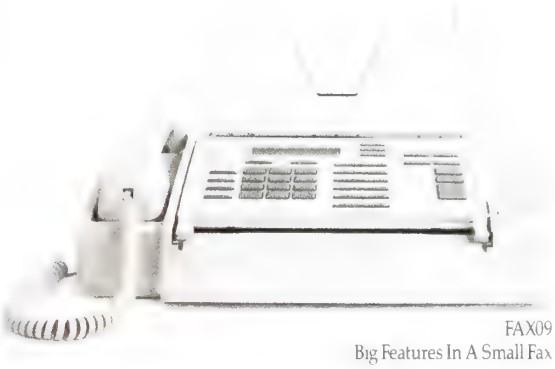
FAX105
World's First Dual Roll Fax

Put It Down On Plain Paper

There's nothing like plain paper to make your fax transmissions look their best. RICOH's FAX1000L and FAX1010L combine laser printing technology with our revolutionary "super smoothing" process to produce images at near 400x400 resolution on plain bond paper. What's more, the affordable FAX1000L and FAX1010L



come with such advanced features as a 114-number auto-dialer. A 60-page memory.* And an automatic page retransmit.



FAX09
Big Features In A Small Fax

Good Things Come In Small Packages

Ricoh's broad line includes fax machines for businesses of all sizes. The FAX09 brings big features to a small office fax. Like an automatic document feeder. Automatic dial. And a 7-page memory.

Which just goes to prove, no matter what you're looking for in a fax machine, it's a RICOH fax machine you should be looking for. To find a RICOH dealer or representative nearest you, dial **1-800-63-RICOH**.

RICOH®

Where Imagination Becomes Reality

Official Worldwide Sponsor of the 1992 Olympic Games

For more information, write to: **Ricoh Corporation, 5 Dedrick Place, West Caldwell, NJ 07006.** Attn: Office Products Business Division, Box 20.

* 15-page memory on FAX1010L

36· USC 380

Kikkoman is working to improve the production process and develop new products.

run for three more years. "This is a spiritual campaign," Yamamoto says.

"There are no statistical targets. We want each department or division to set their own goals." Typical of the approach, he says, is a new emphasis on bottom-up communication in the company, using personal computers.

The Hotel Okura faces a comparable problem. "Apart from new hotels," indicates Managing Director Goro Yamazaki, "our biggest challenge is within ourselves: how we care for our labor as well as our guests."

The hotel is nearing the completion of a renovation program that has updated virtually every aspect of the hotel's facilities. Now the emphasis has shifted to personnel. In Japan's tight labor market, it is important to get and hold the best staff. The hotel is providing better accommodations for its employees.

It has also intensified its training program. "If we train people properly," Yamazaki explains, "our staff will give better service with a smile to our guests. In our business, greatness boils down to the type of service you offer."

STRATEGY #3: BUILD ON SUCCESS

If you want to know what Japanese businessmen are thinking, two publications tell it all: the Nihon Keizai Shimbun, a daily newspaper, and Nikkei Business, a bi-weekly magazine. Both not only report what is happening in Japan, they shape opinion.

Nikkei Business is published by Nikkei Business BP, a subsidiary of the Nihon Keizai Shimbun Group. Nikkei Business also publishes *Nikkei Electronics*, Japan's top electronics magazine, as well as market leaders on everything from medicine and architecture to Japan's emerging service sector.

The challenge for the '90s, says President Akira Nagata, is to give the company's other publications more visibility, while exploring new areas. "It is important for us to explore electronic and multimedia as ways of disseminating information," Nagata observes.

In its field Kikkoman is a global giant It is about to grow even more important. While continuing to expand overseas sales — two-thirds of Americans now use soy sauce — it purchased the Asia-Pacific part of Del Monte, with the exception of the Philippines.

Kikkoman began distributing Del Monte products in Japan 30 years ago. Now that it owns the brand name there, it plans to introduce new products. "We'd like to make Del Monte as big in Japan as Kikkoman itself," says Kikkoman Executive Managing Director Yuzaburo Mogi.

The text of this special advertising section was written by Christopher S. Gray, Ph.D. Dr. Gray is an expert on business in Asia and a frequent visitor to Japan.

THE WALL FELL DOWN, AND THE CONTINENT TOOK OFF

quity in Europe soared—while the Nikkei's dive pounded Japan and U.S. companies held their own

When Europe made history in 1989, a lot of people made fortunes. That's the primary les- n from BUSINESS WEEK's third annual rvey of the Global 1000, which ranks e world's biggest companies by mar- t capitalization and shows whose fi- ncial muscles are developing fastest they head into the 1990s. The list is ll top-heavy with Japanese giants, all miliar names from the previous two ars. But the companies whose shares omed most dramatically reflect a clear te of confidence in the coming Europe- Decade.

There's more to the trend than the umbling of the Berlin Wall last No- mber and the approach of European egration in 1992. The Tokyo stock arket crash in early January wiped % off the Nikkei stock average, send- g even Japan's bluest chips tumbling. ppon Telegraph & Telephone, at the p of the rankings for the third year in row, lost $45 billion—more than the value of all the Austrian and Belgian listings together. Combined with a weaker yen, the crash sent many Japanese companies either down or off the list. Their places were filled by European hotshots poised to settle the Eastern frontier or expand in the new, deregulated Continent of the 1990s.

HARSH LIGHT. Compiled for BUSINESS WEEK by Morgan Stanley Capital International, which tracks 2,200 companies in 21 countries from its base in Geneva, the Global 1000 looks at corporate performance in the harsh light of investor judgment. Country-by-country breakdowns follow the master list, highlighting the best in each market. Additional data on American companies were provided by Standard & Poor's Compustat Services Inc. In a separate table on page 142, you'll find sales and profit rankings for the biggest companies in four major economies where foreign investment is currently restricted or where the equity markets are still immature: South Korea, Taiwan, Brazil, and Mexico.

Together, the Global 1000 are worth $6.7 trillion, up 4.7% from 1989. The top 50 alone, dominated by U. S. and Japanese leviathans, account for more than a quarter of the total. Japan lost 12 companies, and the U. S. dropped twice that number. But the American entries came out $219 billion richer than last year's, while Japan's companies are worth $348 billion less than those in 1989.

Still, the hottest market action was in Europe, where the culture of equity investment has taken hold and given companies ever-deeper pools of financing. The European giants will tap those funds to restructure operations, plow money into research and development, and invest staggering sums to improve the infrastructure in the West and bring the East into the 20th century. Economists believe the remaking of the Continent will boost European growth rates by 1% to 2% over the next five years.

One country making its debut on the

HOW THE GIANTS STACK UP

SALES
Billions of U. S. dollars

1. MITSUI	$128.0
2. MARUBENI	123.2
3. MITSUBISHI	121.5
4. GENERAL MOTORS	110.0
5. C. ITOH	104.7
6. SUMITOMO	97.3
7. EXXON*	95.2
8. ROYAL DUTCH/SHELL**	85.4
9. FORD	82.9
10. NISSHO IWAI	75.1
11. IBM	62.7
12. MOBIL*	56.2
13. GENERAL ELECTRIC	54.6
14. SEARS ROEBUCK	53.8
15. TOYOTA MOTOR	52.6

*Includes excise taxes **Excludes excise taxes

PROFITS
Billions of U. S. dollars

1. IBM	$5.26
2. GENERAL MOTORS	4.22
3. GENERAL ELECTRIC	3.94
4. FORD	3.84
5. DAIMLER BENZ	3.80
6. EXXON	2.98
7. PHILIP MORRIS	2.95
8. BRITISH PETROLEUM	2.92
9. AT&T	2.70
10. FIAT	2.65
11. BRITISH TELECOM	2.53
12. DOW CHEMICAL	2.48
13. DU PONT	2.48
14. TOYOTA MOTOR	2.27
15. BAT INDUSTRIES	1.96

SHARE-PRICE GAIN
Percent from 1989, U. S. dollars

1. ASTRA	188%
2. OSTERR. LANDERBANK	187
3. NINTENDO	177
4. L. M. ERICSSON	168
5. PREUSSAG	154
6. ERSTE ALLGEMEINE VERS.	148
7. CREDITANSTALT	140
8. NAVIGATION MIXTE	133
9. HOCHTIEF	130
10. PHILIPP HOLZMANN	129
11. HONSHU PAPER	121
12. HATTORI SEIKO	118
13. HAVAS	118
14. CREDIT FONCIER	113
15. LYONNAISE DES EAUX	104

DATA: MORGAN STANLEY CAPITAL INTERNATIONAL INC., BW

VICTORIA KANN

THE GLOBAL 1000—THE LEADERS

RANK 1990	RANK 1989	Billions of U. S. dollars		MARKET VALUE
1	1	NIPPON TELEGRAPH & TELEPHONE	Japan	118.79
2	6	INTERNATIONAL BUSINESS MACHINES	U. S.	68.89
3	2	INDUSTRIAL BANK OF JAPAN	Japan	67.61
4	10	ROYAL DUTCH/SHELL GROUP	Neth./Britain	67.14
5	12	GENERAL ELECTRIC	U. S.	62.54
6	8	EXXON	U. S.	60.00
7	3	SUMITOMO BANK	Japan	55.81
8	4	FUJI BANK	Japan	53.17
9	11	TOYOTA MOTOR	Japan	50.44
10	24	MITSUI TAIYO KOBE BANK	Japan	49.80
11	5	DAI-ICHI KANGYO BANK	Japan	49.57
12	7	MITSUBISHI BANK	Japan	47.17
13	16	AMERICAN TELEPHONE & TELEGRAPH	U. S.	46.96
14	13	SANWA BANK	Japan	45.60
15	9	TOKYO ELECTRIC POWER	Japan	41.68
16	19	PHILIP MORRIS	U. S.	39.11
17	17	HITACHI LTD.	Japan	33.04
18	25	MERCK	U. S.	32.72
19	14	NOMURA SECURITIES	Japan	32.54
20	22	LONG-TERM CREDIT BANK OF JAPAN	Japan	32.44
21	85	BRISTOL-MYERS SQUIBB	U. S.	32.13
22	40	WAL-MART STORES	U. S.	31.89
23	39	COCA-COLA	U. S.	30.42
24	18	MATSUSHITA ELECTRIC INDUSTRIAL	Japan	29.63
25	33	BRITISH PETROLEUM	Britain	29.55
26	29	GENERAL MOTORS	U. S.	29.45
27	31	BRITISH TELECOMMUNICATIONS	Britain	29.15
28	15	NIPPON STEEL	Japan	28.17
29	28	DU PONT	U. S.	27.98
30	35	AMOCO	U. S.	27.34
31	32	BELLSOUTH	U. S.	27.10
32	60	PROCTER & GAMBLE	U. S.	26.78
33	47	ATLANTIC RICHFIELD	U. S.	26.05
34	43	MOBIL	U. S.	25.67
35	101	ALLIANZ	West Germany	24.98
36	52	CHEVRON	U. S.	24.94
37	21	KANSAI ELECTRIC POWER	Japan	24.80
38	23	TOKAI BANK	Japan	23.52
39	27	MITSUBISHI HEAVY INDUSTRIES	Japan	23.49
40	20	TOSHIBA	Japan	22.91
41	96	NESTLE	Switzerland	22.81
42	86	DAIMLER-BENZ	West Germany	22.58
43	34	FORD MOTOR	U. S.	22.48
44	66	UNILEVER	Neth./Britain	22.15
45	79	ELI LILLY	U. S.	21.82
46	95	SIEMENS	West Germany	21.29
47	68	JOHNSON & JOHNSON	U. S.	21.28
48	61	GTE	U. S.	21.13
49	62	BELL ATLANTIC	U. S.	20.56
50	48	NEC	Japan	20.45

RANK 1990	RANK 1989	Billions of U. S. dollars		MARKET VALUE
51	26	NISSAN MOTOR	Japan	19.93
52	54	JAPAN AIR LINES	Japan	19.91
53	74	GLAXO HOLDINGS	Britain	19.68
54	87	PEPSICO	U. S.	19.48
55	115	HANSON TRUST	Britain	19.24
56	57	NIPPON CREDIT BANK	Japan	19.19
57	36	BANK OF TOKYO	Japan	19.12
58	64	PACIFIC TELESIS	U. S.	19.09
59	114	BOEING	U. S.	19.05
60	143	DEUTSCHE BANK	West Germany	19.03
61	78	SONY	Japan	18.78
62	82	ASSICURAZIONI GENERALI	Italy	18.71
63	120	WASTE MANAGEMENT	U. S.	18.63
64	30	MITSUBISHI TRUST & BANKING	Japan	18.54
65	70	MINNESOTA MINING & MFG.	U. S.	18.39
66	92	B. A. T. INDUSTRIES	Britain	17.99
67	37	CHUBU ELECTRIC POWER	Japan	17.92
68	99	FIAT GROUP	Italy	17.89
69	77	SOUTHWESTERN BELL	U. S.	17.55
70	38	SUMITOMO TRUST & BANKING	Japan	17.55
71	51	FUJITSU	Japan	17.39
72	72	NYNEX	U. S.	17.27
73	73	AMERITECH	U. S.	17.24
74	112	WALT DISNEY	U. S.	17.20
75	63	DOW CHEMICAL	U. S.	16.76
76	67	MITSUBISHI CORP.	Japan	16.71
77	97	AMERICAN INTERNATIONAL GROUP	U. S.	16.61
78	98	ABBOTT LABORATORIES	U. S.	16.57
79	89	AMERICAN HOME PRODUCTS	U. S.	16.53
80	46	NKK	Japan	16.19
81	45	TOKIO MARINE & FIRE	Japan	15.92
82	110	TEXACO	U. S.	15.70
83	76	SEIBU RAILWAY	Japan	15.64
84	121	BRITISH GAS	Britain	15.56
85	58	ALL NIPPON AIRWAYS	Japan	15.42
86	44	TOKYO GAS	Japan	15.14
87	50	ASAHI GLASS	Japan	15.14
88	49	DAIWA SECURITIES	Japan	14.95
89	313	NINTENDO	Japan	14.47
90	69	DAIWA BANK	Japan	14.23
91	193	ASEA ABB BROWN BOVERI	Sweden/Switz.	14.16
92	105	TOKYU CORP.	Japan	14.12
93	94	IMPERIAL CHEMICAL INDUSTRIES	Britain	14.02
94	174	ROCHE HOLDING	Switzerland	13.99
95	55	MITSUBISHI ELECTRIC	Japan	13.95
96	41	MITSUBISHI ESTATE	Japan	13.91
97	111	US WEST	U. S.	13.90
98	150	SCHLUMBERGER	U. S.	13.87
99	179	ELF AQUITAINE	France	13.75
100	53	NIKKO SECURITIES	Japan	13.37

Footnotes on page 115

obal 1000 tells this year's story in a tshell. Austria weighed in with two nks and an insurer, whose combined rket value skyrocketed 159% from y, 1989, to May, 1990. John Abbink of utsche Bank Capital Corp. in New rk calls such institutions, which own ch of industry in tiny Austria, "al-st a pure play on Eastern Europe."

RICHING THE WEST. But the epicenter the East-West action in Europe has en Germany. With a huge housing ortage, a dearth of modern plant and uipment, and a population with hard rency to spend, East Germany will rich West German industry for years, alysts believe. "I'd certainly hold on to Volkswagen and Sie-ns stocks," says Peter etsch, senior economist Commerzbank in Frank-rt. The carmaker sped the Global 1000 list m No. 276 to No. 124, osting its share price by % and adding nearly $5 lion in market capitaliza-n. Siemens, destined to tall phones in millions deprived Eastern house-lds, saw its share price tchet up 56%. And ares of Deutsche Bank, ich along with Dresdner nk has already claimed ntrol of most of East rmany's banking sys-n, rose 75%.

Lesser-known compa-s ran up even more dra-tically, all on expecta-ns of bigger orders and panded market share in nified Germany. Shares Heidelberger Zement, ich will pour thousands tons of concrete to build ads in the East, were up %. Construction compa-s Hochtief and Philipp Holzmann ared onto the list out of nowhere, with are-price gains of 130% and 129%, re-ectively.

The German market has settled down er its initial euphoria and could have slow summer, as the social and fiscal alities of unification begin to sink in. t Thomas Neisse, head of equity anal-is for Deutsche Bank in Frankfurt, nks the German stock index (DAX) uld gain up to 25% by January, on rnings growth of around 10%.

Investors may find the best of two rlds in France. Its healthy economy is ady to export to the rest of Europe hile West Germany is busy supplying little brother. And risks are lower an in Germany, since the French won't ar the costs of unification as directly. ke Germany, France added 11 companies to this year's Global 1000, many of them in the machinery, transportation, and power businesses. "I love Compagnie Générale d'Electricité," says Didier P. Bodart of Cresvale International Inc. in New York. Sure enough, the electrical equipment manufacturer vaulted up the rankings from No. 358 in 1988 to No. 123 last year, gaining 73% in value. Its Alsthom subsidiary, which with Britain's GEC makes France's high-speed trains, is expected to boom as the rest of Europe lays thousands of miles of new rail.

Other stellar performers included advertising and publishing conglomerate Havas, with a 118% share-price gain (page 114). "Media companies in Europe are going to grow tremendously over the next couple of years," says Bodart, as they satisfy Eastern Europe's hunger for news and entertainment. And Accor, which runs the midprice Novotel hotel chain, is having a field day in such Eastern capitals as Budapest and Moscow. Accor shares were up a hefty 78%.

Overall, France is so flush that President François Mitterrand has begun acting like a socialist again, and his recent talk of raising capital gains taxes and wages has slowed the formerly skyrocketing Paris Bourse. Analysts think the market has overestimated the risk, however, and could end the year 10% to 15% above its present level.

Penetrating Eastern Europe and getting in shape for 1992 don't add up to a windfall for all of Europe. Italy, for instance, has a lot of work to do at home before it becomes a major transcontinental player. Nonetheless, foreign institutions are jumping into the Italian market, diluting the power of the traditional business elite. Foreign investors poured money into Italian telecommunications behemoth STET, pushing its shares up 95% on news that it's spending billions to upgrade the country's communications system.

Altogether, Italy added 11 companies to the roster, reflecting a broadening market. And its composite value jumped past Canada's and Switzerland's with a 48% gain. But local analysts are cautious about Italy, which is saddled with public debt and a huge trade deficit. "Italian industry is at a very delicate point," says Gianpaolo Gamba of Milan broker Gamba Azzoni & Associates.

Britain, too, remained something of a wallflower while Europhoria raged elsewhere. Steady depreciation of the pound, soaring interest rates, and fears that the Conservative sun might be in eclipse hobbled performance in the City of London. The London stock exchange was up only 3% from November to April, compared with 10% for the Dow Jones industrial average and 25% for the German DAX. And unlike the French and German markets, Britain's didn't shake any upstarts from the bottom to the top of the Global 1000.

Prime Minister Margaret Thatcher's recent softening toward the exchange rate mechanism of the European Monetary System sparked a stock rally in May. Analysts think the trend will continue as Britain pulls itself out of recession, interest rates fall, and elections approach. In addition, capital investments in industry over the past five years are beginning to pay off. That could nudge manufacturing back into prominence in Britain's economy, long powered by services and consumer spending.

EXPORT-DRIVEN. For 1990, analysts predict, Britain's biggest gainers will be found among its exporters. Says Sudhiri Junakar, who tracks economic trends for the Confederation of British Industry: "Companies that can take advantage of the more buoyant economies overseas will do much better than those in the home market." Takeover action could also revive again—only this time, British companies will be targets rather than

MARKET GUIDE FOR INVESTORS

National composites of Global 1000 stocks

	Market capitalization Billions of U.S. dollars	P-E ratio	Yield	Return on equity
1. JAPAN	$2,649.9	69	0.5%	9.2%
2. U. S.	2,288.5	19	3.5	18.0
3. BRITAIN	546.6	13	4.8	19.9
4. WEST GERMANY	270.3	34	3.0	14.1
5. FRANCE	205.7	15	2.9	21.7
6. ITALY	122.4	26	2.1	12.1
7. CANADA	111.0	23	3.7	11.8
8. SWITZERLAND	110.8	22	2.1	11.8
9. NETHERLANDS	90.3	11	5.2	36.3
10. SWEDEN	73.6	23	2.3	17.2

DATA: MORGAN STANLEY CAPITAL INTERNATIONAL INC., BW

aggressors. Their relatively low price-earnings ratios, plus a more stable pound after Britain joins the EMS, are likely to tempt outsiders—especially the cash-rich French giants, says Michael Hughes, chief economist at Barclays de Zoete Wedd Ltd. in London.

What of the Japanese juggernaut? The 10,000-point market drop early this year and a yen worth 7% less than in June, 1989, haven't hit all of Japan's listed companies equally. Real estate developers, banks, and brokers took a serious beating, partly because they had so far to fall. Higher interest rates and Bank of Japan's moves to stop the land-price spiral will continue punishing these sectors in 1990.

But the big electronics companies recovered well, as the crash inspired a flight to quality and investors began heading for household names. Signs that U. S. demand may pick up later this year and give exporters a boost are encouraging that trend. NEC Corp. and Sony Corp. were among the handful of big Japanese companies whose shares went north on the Global 1000. Smaller component makers such as Alps Electric Co., up an impressive 21% over last year, are benefiting from anticipated demand for TVs in Eastern Europe.

In only a few Japanese industries did overall share prices resist the market's downward pull. Buoyant consumer spending gave a lift to retailers, including the big Marui Department Store Co. and Ito-Yokado Co. department-store chains. Broadcasting and publishing also escaped damage, as companies poured money into advertising. Next year should be even better for the media: Japanese banks alone, which will soon be allowed to run television ads, are expected to spend $900 million promoting themselves on the tube.

LEISURE TIME. Finally, Japan's powerful auto and electronics exporters are holding their ground despite the Nikkei's fall. Some analysts expect them to outperform the market in 1990. And Tokyo's plan to spend $2.8 trillion over the next 10 years on public works will provide a major economic stimulus. Consumer outlays for leisure and recreation are likely to keep spiraling, and the construction sector is likely to hum as more new roads, bridges, and housing are built.

Now that merger madness has cooled in the U. S., the market saw few wild share-price gains or losses. Instead, where American companies still excel is in profitability. IBM, General Motors, General Electric, and Ford Motor lead the profits list. Those are the very companies to watch over the next year, analysts believe, because their multinational presence will make them key players in the new Europe.

That is clearly where the great market battles of the next 10 years will be fought. And the U. S. and Europe could be the principal adversaries. Stephen Nagourney of Shearson Lehman Hutton Inc. thinks Japan will be busy expanding its influence in Asia, with a relatively marginal investment in Eastern Europe. He believes that a resurgence of American manufacturing strength means "the U. S. could give Europe a run for its money" in 1990. For now, however, investors have elected the Europeans most likely to succeed.

By Joan Warner in New York, with Ted Holden in Tokyo, Stewart Toy in Paris, Igor Reichlin in Bonn, Fred Kapner in Milan, and bureau reports

HAVAS: FRANCE'S MEDIA STAR IS RISING IN THE EAST

As capitalism marches to victory around the world, advertising is close on its heels. A principal crusader is French media giant Havas, quickly becoming one of Eastern Europe's top hucksters. It's also raking in ad money from deregulated television in Western Europe. Happy investors bid up Havas' stock price 118% from May, 1989, to May, 1990. Many analysts see more gains ahead.

Havas was part of the socialist camp until three years ago, when the French government sold the majority stake it had held since World War II. Shaking off those shackles has let Havas do deals abroad. Last year, it merged its billboard business in several countries with that of MAI, a British outdoor advertising company. "When we were state-owned, foreign companies wouldn't touch us," says Havas Chairman Pierre Dauzier. Havas now makes 20% of its profits outside France, up from 5% in 1987. The share should hit 30% in two years.

CHAIRMAN DAUZIER: AD PROFITS JUMPED 30% LAST YEAR

FRENCH EDGE. Dauzier is moving farther east. In recent months, he has signed exclusive deals to sell advertising time on six TV networks in East Germany, Czechoslovakia, and the Soviet Union. He also hopes to plaster billboards all over Eastern Europe. And being French may be an advantage: Dauzier believes that the East German TV networks hired Havas instead of rival bidder Bertelsmann partly to avoid overdependence on West German companies.

Advertising rings up two-thirds of Havas' profits, which jumped 30% last year, to $172 million on revenues of $3.3 billion. Analysts expect a repeat performance in 1990. The company has a 43% stake in France's biggest ad agency, Eurocom. Havas also owns trade magazines and 25% of France's hugely profitable pay-TV channel Canal Plus, which will launch Spanish and German channels next year.

Havas' only weak spot is a French travel-agency chain. Dauzier thinks European airline deregulation in 1992 will let the unit buy seats more cheaply and raise profit margins. Its recent acquisition of SCAC Voyages has expanded its retail network and should cut costs.

With $500 million in cash, Havas is also hunting for acquisitions. But Dauzier denies rumors that he's eyeing troubled British ad agency Saatchi & Saatchi PLC. "We could afford it," he says, "but we lack the management to turn it around." Why ask for trouble when you're landing the world's biggest new account?

By Stewart Toy in Paris

THE BUSINESS WEEK GLOBAL 1000

COUNTRY BY COUNTRY

LOSSARY

ARKET VALUE:
are price on May 31, 1990, multiplied by est available number of shares outstanding, nslated into U. S. dollars at May month-end change rates. Market value may include veral classes of stock; price and yield data e based on the company's most widely held ue.

ARE PRICE AND ANNUAL CHANGE:
osing per-share price on May 31, 1990, in S. dollars. Annual percent change from ay 31, 1989, to May 31, 1990, both in S. dollars and in each company's local rency.

PRICE/BOOK VALUE RATIO:
The ratio of May closing price to latest available net worth per share or common shareholders' equity investment.

PRICE/EARNINGS RATIO:
The ratio of May closing price to latest 12-months' earnings per share.

YIELD:
Latest 12 months' dividends per share as a percent of May closing price.

SALES:
Net sales reported by company, translated at May 31 exchange rates; revenues for banks and other financial institutions are not included because they are not comparable to those of industrial companies.

PROFITS:
Latest after-tax earnings available to common shareholders, translated at May 31 currency exchange rates; profits are from companies' continuing operations before extraordinary items. Sales, profits, and assets are for 1989 fiscal year unless noted; p/e and ROE based on latest 12 months' earnings per share.

RETURN ON EQUITY:
Latest 12-months' earnings per share as percent of most recent book value per share.

INDUSTRY CODE:
For key to the two-digit code, see page 136.

Data for individual companies: Morgan Stanley Capital International, unless otherwise indicated. Country composites and rankings calculated by BUSINESS WEEK. Additional data by Standard & Poor's Compustat Services Inc. if footnoted.

NTRY K	GLOBAL 1000 RANK	MARKET VALUE U. S. $ MIL.	PRICE PER SHARE U. S. $	% CHANGE FROM 1989 (U. S. $)	% CHANGE FROM 1989 (LOCAL)	PRICE/ BOOK VALUE RATIO	P/E RATIO	YIELD %	SALES U. S. $ MIL.	PROFITS U. S. $ MIL.	ASSETS U. S. $ MIL.	RETURN ON EQUITY %	INDUSTRY CODE
OBAL MPOSITE		**6735152**	**715**	**29**	**16**	**3.3**	**28**	**3.4**	**6426986**	**343204**	**18353033**	**16.3**	
USTRALIA													
UNTRY COMPOSITE		**56862**	**5**	**6**	**4**	**1.7**	**10**	**5.9**	**59359**	**5857**	**276657**	**16.8**	
1 **Broken Hill Proprietary**	149	10486	7	14	12	2.0	12	3.8	8072	797	15397	16.1	11
2 **CRA**	343	5391	9	39	35	1.7	12	4.8	3827	452	6180	14.5	24
3 **BTR Nylex**	373	4957	2	24	20	3.3	12	3.8	3815	401	4428	26.4	37
4 **National Australia Bank**	396	4670	5	1	–1	1.0	7	9.4	NA	603	58617	14.2	61
5 **Westpac Banking**	452	4179	4	–1	–3	0.8	7	9.2	NA	609	83606	11.9	61
6 **ANZ Group Holdings**	550	3581	4	2	0	1.1	11	8.7	NA	399	65222	10.3	61
7 **Elders IXL**	627	3152	1	–15	–17	1.0	6	10.5	13586	503	7733	15.3	59
8 **Western Mining**	645	3068	4	–5	–7	1.8	9	6.5	928	351	2393a	21.0	24
9 **Coles Myer**	666	2965	6	–11	–13	1.9	10	6.1	10785	299	3790	18.5	54
0 **CSR**	675	2918	4	16	13	1.6	10	6.5	3477b	313b	3885	17.3	71
1 **Pacific Dunlop Olympic**	743	2680	4	10	7	3.1	12	3.9	3456	202	3167	26.6	71
2 **Boral**	870	2310	3	19	16	1.8	9	6.5	2791	232	2621	20.2	21
3 **M. I. M. Holdings**	893	2254	2	22	19	1.5	10	4.9	1353	185	3498	14.9	24
4 **Brambles Industries**	925	2173	11	10	8	2.6	14	3.1	1203	131	1438	18.4	52
5 **News**	964	2078	8	–28	–30	0.5	8	1.0	6066	382	14681	6.7	51
USTRIA													
UNTRY COMPOSITE		**8336**	**821**	**159**	**120**	**5.4**	**90**	**0.9**	**867**	**94**	**66111**	**6.2**	
1 **Creditanstalt-Bankverein**	488	3962	487	140	104	2.4	114	1.3	NA	34	41390a	2.1	61
2 **Erste Allegemeine Vers.**	887	2269	1874	148	111	11.0	92	0.2	867a	24a	1691a	12.0	63
3 **Osterreichische Landerbank**	952	2105	102	187	144	2.9	64	1.2	NA	36	23031	4.6	61
ELGIUM													
UNTRY COMPOSITE		**36385**	**177**	**9**	**–8**	**1.5**	**13**	**5.2**	**31663**	**3485**	**137182**	**14.8**	
1 **Petrofina**	230	7467	345	8	–10	1.8	12	4.6	12755	641	10586	14.9	11
2 **Générale de Belgique**	330	5570	94	21	1	1.4	10	3.4	NA	577	15958	14.3	71
3 **Solvay**	579	3428	414	14	–5	1.4	6	3.8	7383	549	6995	22.2	22
4 **Tractebel**	611	3235	252	12	–7	1.5	13	4.5	NA	253	4401a	11.9	71
5 **ACEC-Union Miniere**	669	2950	119	NA	NA	2.2	5	4.0	5142	544	3824	40.6	24
6 **Intercom**	713	2781	93	6	–12	1.1	11	8.6	2873	265	6357	10.8	12
7 **Royale Belge**	757	2643	165	29	7	2.3	27	3.0	1224a	96a	13128a	8.3	63
8 **Groupe Bruxelles Lambert**	948	2114	115	7	–11	1.7	11	4.6	NA	213	3182a	15.9	71

ased on nonconsolidated results. ** Based on consolidated earnings-per- share and nonconsolidated book value per share. a) Based on 1988 data. b) Based on 1990 data. c) Merged with Taiyo e Bank in April 1990. d) Partial year data because of fiscal-year change. e) U.S. consolidated data. f) Data for 15 months because of fiscal year change. g) Earnings include Alsthom and Alcatel. arnings include provisions for loan losses. i) Earnings include pretax provisions. j) 80% owned by Daimler-Benz. k) Listed since September 1989. l) Acquired Texas Eastern in June 1989. 1) Global king calculated for Royal Dutch/Shell Group by combining market value of Netherland's Royal Dutch Petroleum and Britain's Shell Transport & Trading. 2) Global ranking calculated for thKline Beecham by combining market value of SmithKline Beecham PLC A and SmithKline Beecham Unit. 3) Global ranking calculated for Unilever by combining market value of Netherland's ever NV and Britain's Unilever PLC. 4) Global ranking calculated for Eurotunnel by combining market value of Eurotunnel (London) and Eurotunnel (Paris). 5) Global ranking calculated for ABB a Brown Boveri by combining market value of Sweden's ASEA and Switzerland's BBC Brown Boveri. Sales, profits, and assets in the individual country tables are for the combined companies; re, price, and market-value data are for separate companies. 6) Data for this company provided by Standard & Poor's Compustat Services Inc. Unless otherwise noted, all other data provided by rgan Stanley Capital International. LOSS = Negative ratio. NA = Not available. NR = Not ranked. NEG = Negative return.

THE GLOBAL 1000

COUNTRY RANK		GLOBAL 1000 RANK	MARKET VALUE U.S. $ MIL	PRICE PER SHARE U.S. $	% CHANGE FROM 1989 U.S. $	% CHANGE FROM 1989 LOCAL	PRICE/BOOK VALUE RATIO	P/E RATIO	YIELD %	SALES U.S. $ MIL	PROFITS U.S. $ MIL	ASSETS U.S. $ MIL	RETURN ON EQUITY %	INDUSTRY CODE
9	**EBES**	967	2072	115	2	−15	1.3	9	8.9	2287	223	4949	13.8	12
10	**Electrafina**	968	[illegible]	93	9	−9	1.0	15	5.0	NA	50a*	837a*	7.0	11
11	**Générale de Banque**	973	[illegible]	144	−16	−17	1.0	28	7.1	NA	74	66964	3.5	61
BRITAIN														
COUNTRY COMPOSITE			**546623**	**8**	**17**	**9**	**2.3**	**13**	**4.8**	**615858**	**44247**	**1537430**	**19.9**	
1	**British Petroleum**	25	29549	6	22	14	1.6	10	6.2	49718	2923	53094	15.7	11
2	**British Telecommunications**	27	29153	5	20	12	2.0	11	5.5	20693b	2531b	30335	17.0	55
3	**Shell Transport & Trading** [1]	NR	26025	8	23	15	1.5	11	5.2	85412	6539	90193	14.5	11
4	**Glaxo Holdings**	53	19679	13	24	16	5.1	15	4.2	4317	1156	5827	33.8	45
5	**Hanson Trust**	55	19243	4	29	20	9.0	11	5.0	11754	1362	18182	78.9	71
6	**B. A. T. Industries**	66	17995	12	45	35	2.5	10	5.5	22654	1969	19408	24.9	43
7	**British Gas**	84	15563	4	34	25	1.3	10	6.4	13404b	NA	19204	13.0	12
8	**Imperial Chemical Industries**	93	14023	20	2	−5	1.7	9	6.1	22121	1562	18931	18.4	22
9	**BTR**	108	12548	7	27	19	4.7	12	4.7	11800	1048	10154	39.3	71
10	**SmithKline Beecham Group** [2]	121	11551	9	12	5	NEG	15	2.1	7182	800	6294	NEG	45
11	**Guinness**	127	11353	13	69	57	2.2	15	2.7	3571	739	10409	14.7	43
12	**Barclays Bank**	141	10651	7	35	26	1.1	14	6.5	NA	759h	214324	7.9	61
13	**Grand Metropolitan**	148	10521	10	23	14	2.0	10	4.0	15617	853	16074	20.3	71
14	**Marks & Spencer**	156	10077	4	30	22	3.1	15	3.8	9406b	NA	5064	20.2	54
15	**Cable & Wireless**	162	9809	9	5	−2	4.2	19	2.0	2577	479	4900	22.5	55
16	**General Electric**	168	9608	4	−5	−11	1.9	10	5.2	11193	857	9433	18.1	34
17	**National Westminster Bank**	174	9443	6	30	21	0.9	24	6.4	NA	391h	195176	4.0	61
18	**Wellcome**	175	9438	11	55	45	6.8	30	1.1	2365	279	2383	23.1	45
19	**RTZ**	176	9408	10	24	16	2.2	9	4.3	10340	988	12213	24.4	24
20	**Unilever PLC** [3]	NR	9166	12	35	26	4.6	12	3.3	34434	1687	20564	38.2	44
21	**Reuters Holdings**	192	8666	20	58	48	12.6	27	1.4	1994	304	1637	46.0	52
22	**J. Sainsbury**	233	7444	5	30	22	3.8	16	2.8	12194b	NA	4817	23.3	54
23	**Prudential**	259	6889	4	35	26	5.0	15	5.6	7930	462	65691	33.9	63
24	**Bass**	281	6453	18	23	15	1.4	10	3.7	5617	623	7864	13.6	43
25	**Racal Telecommunications**	285	6315	6	−13	−19	20.8	40	0.3	403	104	490	51.9	55
26	**Lloyds Bank**	289	6120	5	39	30	1.5	LOSS	6.1	NA	−984	96647	NEG	61
27	**Tesco**	296	6057	4	42	33	2.9	14	2.5	9624b	427b	4088b	20.4	54
28	**Allied-Lyons**	298	6002	8	16	8	1.2	10	4.8	6489	543	8939	12.2	43
29	**Enterprise Oil**	366	5056	11	31	22	6.9	23	2.6	566	195	1948a	29.9	11
30	**British Steel**	383	4832	2	−5	−11	0.7	4	7.2	8240	942	9277	16.4	25
31	**Boots**	386	4785	5	9	2	1.6	12	4.7	4542	351	3749	13.9	54
32	**Racal Electronics**	411	4531	3	−11	−17	3.5	22	2.1	2669	197	2852	16.0	31
33	**Ladbroke Group**	415	4506	5	15	7	1.1	13	4.2	6146	348	7849	8.5	53
34	**Abbey National**	417	4477	3	NA	NA	NA	7	3.7	NA	543	62483	NA	61
35	**BOC Group**	427	4373	9	24	16	2.3	11	4.2	3878	385	4658	20.8	22
36	**Great Universal Stores**	433	4338	17	9	1	1.1	10	4.2	4417	445	5210a	11.4	54
37	**Peninsular & Oriental Steam**	437	4292	10	2	−5	1.3	10	6.3	7689	440	8358	13.4	58
38	**Land Securities**	438	4290	9	−4	−10	0.6	21	4.5	NA	208b	10083b	2.9	64
39	**Sun Alliance & London Insurance**	450	4201	5	24	16	0.9	12	5.3	5519	361	11653	7.4	63
40	**Cadbury Schweppes**	457	4151	6	6	−1	3.6	14	4.2	4775	272	3563	26.1	44
41	**Fisons**	465	4109	6	33	24	6.0	17	2.2	1713	222	1637	35.8	45
42	**Reed International**	473	4070	7	21	13	1.6	13	3.8	2654b	64b	3784	12.5	51
43	**General Accident Fire & Life**	490	3959	19	23	15	0.9	17	6.0	5849	217	17379	5.5	63
44	**Royal Insurance**	504	3864	8	28	20	1.1	20	7.2	6173	151	16771	5.2	63
45	**TSB Group**	507	3849	2	47	37	1.2	9	5.0	NA	462a	37809a	13.7	61
46	**Thorn EMI**	512	3823	12	12	5	3.9	10	5.1	6242b	333b	3766	37.3	41
47	**Rank Organisation**	524	3748	14	−4	−11	1.6	10	4.9	1836	301	3295	15.8	33
48	**Rothmans International**	525	3745	12	41	31	2.9	12	2.9	2190	277	3131	24.4	43
49	**Argyll Group**	527	3740	4	26	18	4.2	15	3.7	5880	210	2393	28.5	54
50	**Midland Bank**	532	3722	5	−9	−15	0.8	LOSS	8.5	NA	−368	104945	NEG	61
51	**Rolls Royce**	540	3660	4	28	20	1.9	10	4.2	4975	322	4355	18.2	31
52	**Trusthouse Forte**	541	3658	5	−10	−16	0.8	10	4.6	5010	341	7144	8.3	53
53	**Lloyds Abbey Life**	544	3645	5	31	22	2.6	11	7.0	1424	331	7889	23.8	63
54	**BAA**	564	3494	7	25	17	1.5	13	3.2	1077	230	3591	11.5	52
55	**Commercial Union Assurance**	570	3456	8	42	32	1.2	22	6.0	5921	155	26471	5.4	63
56	**Guardian Royal Exchange**	574	3453	4	25	17	1.3	21	6.4	3366	163	9381	6.0	63
57	**Pearson**	585	3387	12	13	5	3.0	11	3.9	2452	289	2603	26.8	71
58	**BET**	597	3302	4	1	−6	3.5	9	6.4	3616	304	2753	37.8	71
59	**Whitbread**	615	3219	7	32	24	0.9	11	4.6	3443b	NA	5325	7.9	43
60	**Legal & General Group**	621	3182	7	39	30	5.2	20	5.4	3887	158	29327	25.9	63
61	**Reckitt & Colman**	625	3158	21	22	14	3.2	13	3.1	2630	235	1910	23.8	44
62	**Tarmac**	633	3130	4	−14	−20	1.3	8	5.8	5924	391	5398	16.4	21
63	**Associated British Foods**	658	3022	7	22	14	1.1	10	3.7	4653b	317b	3724	11.0	44
64	**Lasmo**	660	3010	7	57	46	1.9	28	2.4	442	91	2693	6.9	11
65	**Trafalgar House**	719	2752	5	−3	−9	2.0	13	7.5	5424	359	4244	14.8	71
66	**Redland**	730	2718	10	8	1	2.2	10	5.3	2600	282	3267	23.0	21
67	**MEPC**	734	2707	8	−5	−12	0.6	16	4.7	NA	149	7406	3.5	64
68	**Polly Peck International**	741	2683	7	94	81	1.2	10	4.1	1952	232	3905	11.8	59
69	**United Biscuits (Holdings)**	749	2661	6	12	4	2.3	12	5.3	4569	212	2339	19.0	44
70	**Lonrho**	764	2625	4	11	3	1.1	9	8.5	6062	277	5911	12.2	71
71	**Pilkington**	789	2537	3	−5	−11	1.8	8	6.3	4896b	311b	4386	24.5	26
72	**STC**	791	2531	5	−20	−26	2.3	8	5.5	4379	296	3022	27.1	34
73	**British Airways**	799	2511	3	10	3	2.0	6	5.7	8130b	412b	5869	32.8	56

Footnotes on page 115

THE GLOBAL 1000

NTRY K	GLOBAL 1000 RANK	MARKET VALUE U. S. $ MIL.	PRICE PER SHARE U. S. $	% CHANGE FROM 1989 (U. S. $)	% CHANGE FROM 1989 (LOCAL)	PRICE/ BOOK VALUE RATIO	P/E RATIO	YIELD %	SALES U. S. $ MIL.	PROFITS U. S. $ MIL.	ASSETS U. S. $ MIL	RETURN ON EQUITY %	INDUSTRY CODE
Sears Holdings	819	2441	2	–12	–18	1.1	9	7.4	3510b	NA	4157	13.0	54
Kingfisher	830	2409	5	16	B	1.5	6	4.7	4888b	388b	3279b	24.1	54
Hillsdown Holdings	854	2350	4	5	–2	2.7	8	3.6	6195	250	2976	32.6	44
British Aerospace	864	2331	9	–12	–18	0.6	7	5.6	15251	400	15413	9.0	31
Royal Bank of Scotland Group	884	2272	3	22	14	1.0	6	5.6	NA	247	46090	15.1	61
RMC Group	890	2259	12	–1	–8	2.3	10	3.5	4317	223	2727	22.4	21
Courtaulds	895	2248	6	28	19	2.1	11	4.2	4384	235	3037	18.4	22
Maxwell Communication	896	2248	3	13	6	1.2	10	8.3	2336f	249	5450	11.7	52
Blue Circle Industries	913	2205	4	–5	–11	1.7	8	6.0	2155	244	3564	20.9	21
Hawker Siddeley Group	915	2200	11	2	–5	1.7	11	5.0	3605	207	3334	16.0	38
Scottish & Newcastle Breweries	928	2168	6	20	12	1.1	13	4.9	1727	144	2822	8.6	43
ASDA Group	947	2116	2	–31	–36	1.3	8	5.9	4550	282	3116	16.1	54
Ultramar	949	2111	6	22	14	1.3	12	3.5	2953	171	3821	10.6	11
Ranks Hovis McDougall	980	2035	6	–16	–21	2.2	10	4.9	3000	200	3244	21.8	44
BICC	986	2023	7	–5	–12	3.7	10	5.7	6369	197	2556a	39.2	37
Eurotunnel (London) (4)	NR	1516	9	–46	–50	1.8	NA	NA	NA	NA	NA	NA	52
ANADA													
UNTRY COMPOSITE		**111017**	**25**	**9**	**6**	**1.9**	**23**	**3.7**	**86134**	**8710**	**526608**	**11.8**	
BCE (Bell Canada Enterprises)	152	10232	34	6	3	1.3	10	6.4	14229	1024	33488	12.2	55
Imperial Oil	178	9303	49	B	5	1.5	22	3.1	8619	389	13290	7.0	11
Seagram	210	8173	86	15	12	1.5	12	2.3	NA	710b	10213b	13.1	43
International Thomson Organisation	262	6808	12	NA	NA	2.3	16	3.6	5112	420	6955	14.3	51
Northern Telecom	267	6717	28	60	56	2.5	18	1.0	6110	377	6375	14.1	34
Canadian Pacific	299	5975	19	0	–3	0.9	12	4.2	9400	567	16249	7.8	71
Royal Bank of Canada	312	5741	20	10	7	1.5	13	5.0	NA	451	97838a	11.7	61
Laidlaw Transportation	347	5346	22	56	51	4.3	24	1.1	1205	180	2261	17.7	57
Alcan Aluminium	364	5080	23	2	0	1.1	7	4.9	8839	835	9508	15.6	24
Toronto-Dominion Bank	400	4623	15	–10	–12	1.4	9	4.2	NA	593	53824	16.3	61
Canadian Imperial Bank of Commerce	462	4117	23	–4	–7	1.1	12	5.6	NA	384	85478	9.6	61
Placer Dome	513	3806	16	27	24	2.3	40	1.6	771	95	2419	5.8	81
Imasco	534	3713	31	17	13	1.9	12	3.5	3612	312	4587	15.6	43
Shell Canada	545	3644	33	–13	–15	1.4	27	2.4	4194	181	4835	5.1	11
Noranda	631	3140	17	–9	–12	0.8	12	5.1	7954	377	11979	6.9	24
Pancanadian Petroleum	654	3036	24	11	8	2.4	26	2.1	674	113	2334	9.4	11
Inco	687	2874	28	–6	–9	2.2	5	3.6	3948	753	3665	41.8	24
Moore	722	2745	29	–6	–8	1.9	13	3.2	2708	202	2008	14.1	52
Bank of Montreal	777	2572	23	–13	–16	0.9	111	7.9	NA	44h	67318	0.8	61
Trizec	796	2514	17	NA	NA	3.6	39	1.8	1016	96	8674	9.2	64
American Barrick Resources	838	2397	19	89	83	5.7	55	0.5	206	36	701a	10.3	81
Bank of Nova Scotia	891	2258	12	–19	–22	0.9	19	7.1	NA	189h	69092	4.9	61
Nova Corp. of Alberta	941	2136	7	–18	–21	1.1	35	6.2	4128	159	6740	3.2	12
Gulf Canada Resources	972	2061	13	6	2	1.8	LOSS	2.6	779	44	2834	NEG	11
TransCanada PipeLines	994	2007	13	7	4	2.0	12	4.4	2630	179	3943	16.7	12
ENMARK													
UNTRY COMPOSITE		**11848**	**9878**	**48**	**23**	**12.7**	**140**	**1.6**	**1584**	**201**	**28712**	**8.5**	
Dampskibsselskabet Svendborg	571	3468	23270	64	36	16.4	241	0.2	NA	14a	271a	6.8	58
Dampskibsselskabet Af 1912	575	3452	15982	61	34	18.7	278	0.3	NA	12a	246a	6.7	58
Den Danske Bank	788	2538	51	17	–3	NA	17	4.8	NA	78	26258	NA	61
Carlsberg	840	2389	209	50	24	3.0	26	1.1	1584	96	1936	11.9	43
INLAND													
UNTRY COMPOSITE		**2006**	**6**	**–16**	**–25**	**0.7**	**14**	**5.2**	**0**	**136**	**37193**	**5.1**	
Union Bank of Finland	995	2006	6	–16	–25	0.7	14	5.2	NA	136	37193	5.1	61
RANCE													
UNTRY COMPOSITE		**205718**	**212**	**45**	**23**	**3.4**	**15**	**2.9**	**267072**	**15979**	**1195365**	**21.7**	
Elf Aquitaine	99	13746	123	63	38	1.2	11	4.5	26304	1263	29789a	11.3	11
Compagnie Générale d'Electricité	123	11455	112	73	46	2.6	13	2.6	25252	866g	31407	19.3	34
LVMH Möet Hennessy	159	9932	817	31	11	5.6	19	2.0	3443	514	4964a	29.2	43
Cie Financière de Suez	164	9745	82	66	40	1.6	14	2.2	NA	712	71600a	12.1	61
Union des Assurances de Paris	181	9177	109	NA	NA	1.9	12	2.1	11308	600	37598a	15.6	63
Compagnie Générale des Eaux	186	8958	478	73	46	4.4	27	1.9	17308	321	15211a	16.1	52
BSN-Gervais Danone	204	8261	152	46	23	2.5	17	2.0	8535	473	9875	14.3	44
Paribas	221	7928	116	60	35	1.7	13	2.7	NA	605	129224a	13.9	61
Peugeot	240	7241	145	18	–1	1.4	4	2.9	26830	1806	17161a	35.2	42
Société Générale	269	6691	108	51	27	2.6	11	3.7	NA	624	165208a	24.2	61
Compagnie de Saint-Gobain	283	6410	103	14	–4	1.8	8	3.7	11591	756	12110a	21.0	26
Compagnie du Midi	291	6111	243	18	0	1.8	25	2.2	NA	243a	28338a	7.0	71
L'Air Liquide	301	5921	132	42	20	2.9	19	2.6	4954	317	5594a	15.4	22
L'Oréal	340	5448	942	55	30	3.8	23	1.7	4765	NA	3690a	16.5	45
BNP	370	5042	86	62	36	1.1	8	4.4	NA	599	209206a	13.5	61
Lafarge Coppée	409	4561	86	51	28	2.9	12	2.7	5325	382	7541	24.5	21
Total Française Pétroles	413	4516	124	74	47	1.1	12	4.2	18939	388	15423a	9.8	11
Crédit Lyonnais	446	4241	152	77	50	1.1	8	4.0	NA	549	190092a	14.0	61

Footnotes on page 115

THE GLOBAL 1000

COUNTRY RANK	COMPANY	GLOBAL 1000 RANK	MARKET VALUE $ MIL	PRICE PER SHARE $	% CHANGE FROM 1985 $	% CHANGE FROM 1985 LOCAL	PRICE BOOK VALUE RATIO	P/E RATIO	YIELD %	SALES $ MIL	PROFITS $ MIL	ASSETS $ MIL	RETURN ON EQUITY %	INDUSTRY CODE
9	Compagnie de Navigation Mixte	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]	[illegible]
10	Carrefour	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	Groupe Victoire	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]	[illegible]
12	Havas	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	Rhône-Poulenc	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	Lyonnaise des Eaux	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	Pechelbronn	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]	[illegible]
16	Accor	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	Sanofi	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	Pechiney	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	Canal Plus	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	CMB Packaging	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	Perrier	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]
22	Perrod Ricard	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]
23	Sommier	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	Thomson-CSF	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	Union Fonciere de France	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]	[illegible]
26	Michelin	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	Cap Gemini Sogeti	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	Compagnie Bancaire	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]	[illegible]
29	Ciments Français	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	Legrand	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	Pechiney International	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
32	Eurotunnel (Paris)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	NA	NA	NA	NA	NA	[illegible]

HONG KONG

COUNTRY RANK	COMPANY	GLOBAL 1000 RANK	MARKET VALUE $ MIL	PRICE PER SHARE $	% CHANGE FROM 1985 $	% CHANGE FROM 1985 LOCAL	PRICE BOOK VALUE RATIO	P/E RATIO	YIELD %	SALES $ MIL	PROFITS $ MIL	ASSETS $ MIL	RETURN ON EQUITY %	INDUSTRY CODE
	COUNTRY COMPOSITE		46326	2	20	20	2.2	12	4.8	17360	4226	194574	19.0	
	Hong Kong Telecommunications	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	Hongkong & Shanghai Banking	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]	[illegible]
1	Hutchison-Whampoa	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	Swire Pacific	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	Cheung Kong Holdings	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	Cathay Pacific Airways	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	Sun Hung Kai Properties	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	China Light & Power	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	Hongkong Land	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	Jardine Matheson Holdings	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Hang Seng Bank	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]	[illegible]
1	Dairy Farm International Holdings	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	Hongkong Electric Holdings	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

IRELAND

COUNTRY RANK	COMPANY	GLOBAL 1000 RANK	MARKET VALUE $ MIL	PRICE PER SHARE $	% CHANGE FROM 1985 $	% CHANGE FROM 1985 LOCAL	PRICE BOOK VALUE RATIO	P/E RATIO	YIELD %	SALES $ MIL	PROFITS $ MIL	ASSETS $ MIL	RETURN ON EQUITY %	INDUSTRY CODE
	COUNTRY COMPOSITE		4731	7	0	0	2.9	11	1.9	2627	397	25176	25.7	
	Allied Irish Banks	[illegible]	[illegible]	[illegible]	NA	NA	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]	[illegible]
1	Smurfit Group	[illegible]	[illegible]	[illegible]	NA	NA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

ITALY

COUNTRY RANK	COMPANY	GLOBAL 1000 RANK	MARKET VALUE $ MIL	PRICE PER SHARE $	% CHANGE FROM 1985 $	% CHANGE FROM 1985 LOCAL	PRICE BOOK VALUE RATIO	P/E RATIO	YIELD %	SALES $ MIL	PROFITS $ MIL	ASSETS $ MIL	RETURN ON EQUITY %	INDUSTRY CODE
	COUNTRY COMPOSITE		122437	17	48	14	3.0	26	2.1	125674	8191	476290	12.1	
	Assicurazioni Generali	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	Fiat Group	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	STET	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	SIP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	Mediobanca	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]	[illegible]
1	Ferruzzi	[illegible]	[illegible]		NA	NA	NA	[illegible]	NA	[illegible]	[illegible]	NA	NA	[illegible]
1	Banca Commerciale Italiana	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]	[illegible]
1	La Rinascente	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	Montedison	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	RAS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Alleanza Assicurazioni	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	Credito Italiano	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]	[illegible]
1	Olivetti Group	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	Pirelli Finanziaria	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]	[illegible]
1	CIR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]	[illegible]
1	IFI	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]	[illegible]
1	Gemina	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]	[illegible]
1	Banca di Roma	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	NA	[illegible]	[illegible]	[illegible]	[illegible]
1	Mediobanca Attività Bancarie	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	Nuova Banca Ambrosiana	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	NA	[illegible]	[illegible]	NA	[illegible]
	Investimenti	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]
	SAI	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]	[illegible]
	Pirelli	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	Torno Assicurazioni	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Footnotes on page 115

Our Software Is Behind Almost Every Company In This Magazine.

Big or small, young or old, the companies of the Business Week Global 1000 seem to agree on one thing.

Computer Associates software.

Virtually every company mentioned uses it on their mainframe, midrange or microcomputers.

Why?

Because CA offers the most effective, integrated software solutions in the world. They can help make your information systems more productive—while controlling costs at the same time.

And that's why you'll find Computer Associates software wherever you find the world's most successful companies.

After all, these days the right software can really give a company a competitive edge. Everyone knows that.

Almost.

CA90s

CA's Computing Architecture For The 90s protects and enhances the value of every CA software solution.

COMPUTER ASSOCIATES

Software superior by design.

© 1990 Computer Associates International, Inc., 711 Stewart Avenue, Garden City, NY 11530-4787 1-800-645-3003

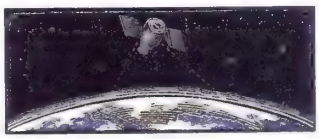
THE GLOBAL 1000

COUNTRY RANK		GLOBAL 1000 RANK	MARKET VALUE U.S. $ MIL	PRICE PER SHARE U.S. $	% CHANGE FROM 1989 (U.S. $)	% CHANGE FROM 1989 (LOCAL)	PRICE/BOOK VALUE RATIO	P/E RATIO	YIELD %	SALES U.S. $ MIL.	PROFITS U.S. $ MIL	ASSETS U.S. $ MIL.	RETURN ON EQUITY %	INDUSTRY CODE
JAPAN														
COUNTRY COMPOSITE			**2649916**	**19**	**-4**	**2**	**6.3**	**69**	**0.5**	**1987817**	**53042**	**6111647**	**9.2**	
1	**Nippon Telegraph & Telephone**	1	118795	7620	–27	–22	4.6	66	0.4	39519b	1799b	75888	6.9	55
2	**Industrial Bank of Japan**	3	67612	29	–6	0	8.4	123	0.2	NA	549	234058	6.8	61
3	**Sumitomo Bank**	7	55813	18	–24	–19	4.9	46	0.3	NA	1208b	328839	10.6	61
4	**Fuji Bank**	8	53169	18	–23	–18	5.5	43	0.3	NA	1195	318302	12.7	61
5	**Toyota Motor**	9	50441	17	–9	–3	2.0	22	0.8	52655	2271	46957	9.3	42
6	**Mitsui Taiyo Kobe Bank**	10	49804	15	–5	1	5.6	105	0.3	NA	473bc	180122	5.3	61
7	**Dai-Ichi Kangyo Bank**	11	49570	16	–27	–23	5.0	37	0.4	NA	1306	338325	13.6	61
8	**Mitsubishi Bank**	12	47165	16	–22	–17	5.2	42	0.3	NA	1136	307123	12.4	61
9	**Sanwa Bank**	14	45600	16	–12	–7	4.7	43	0.4	NA	1063b	304589	11.1	61
10	**Tokyo Electric Power**	15	41678	31	–23	–19	4.6	85	1.1	26850b*	486b	67308*	5.4	12
11	**Hitachi Ltd.**	17	33042	10	–9	–4	2.0	24	0.6	46465b	1385b	51237b	8.2	34
12	**Nomura Securities**	19	32540	17	–28	–24	2.9	17	0.6	NA	906de	30204	17.3	62
13	**Long-Term Credit Bank of Japan**	20	32444	135	–1	6	5.2	81	0.4	NA	403b	160100	6.4	61
14	**Matsushita Electric Industrial**	24	29634	14	–18	–13	1.6	20	0.6	39408b	1549b	42027	7.6	41
15	**Nippon Steel**	28	28172	4	–35	–30	5.7	53	0.8	17298	513	22786	10.7	25
16	**Kansai Electric Power**	37	24803	26	–20	–15	3.9	67	1.3	13655b*	368b	35417*	5.8	12
17	**Tokai Bank**	38	23520	12	–27	–22	4.2	53	0.5	NA	419	208121	7.8	61
18	**Mitsubishi Heavy Industries**	39	23492	7	–13	–7	4.6	57	0.7	14968b	443b	20508	8.0	38
19	**Toshiba**	40	22909	7	–28	–24	3.8	26	0.8	27900b	867b	27611	14.5	34
20	**NEC**	50	20451	13	3	9	4.2	37	0.4	22609b	NA	21965	11.5	34
21	**Nissan Motor**	51	19926	8	–27	–22	1.8	26	1.2	37091b	762b	31130	6.9	42
22	**Japan Air Lines**	52	19908	118	5	12	10.7	118	0.3	7169	133	7989	9.1	56
23	**Nippon Credit Bank**	56	19193	111	7	13	7.3	71	0.4	NA	230b*	103860*	10.4**	61
24	**Bank of Tokyo**	57	19117	10	–18	–13	4.4	46	0.5	NA	398	173341	9.5	61
25	**Sony**	61	18783	57	5	12	2.1	31	0.6	14081	476	26239	6.8	41
26	**Mitsubishi Trust & Banking**	64	18541	14	–25	–20	3.8	35	0.4	NA	534	107661	11.1	62
27	**Chubu Electric Power**	67	17916	24	–18	–13	3.2	63	1.4	11226b*	282b	26246*	5.0	12
28	**Sumitomo Trust & Banking**	70	17546	14	–21	–16	3.8	33	0.4	NA	520	101103	11.5	62
29	**Fujitsu**	71	17393	10	-11	–5	2.7	32	0.6	15670	459	17232	8.4	33
30	**Mitsubishi Corp.**	76	16707	11	0	7	4.1	42	0.5	121578b	397b	62450	9.7	59
31	**NKK**	80	16189	5	–24	–20	7.4	25	0.7	9059	602	17508	29.1	25
32	**Tokio Marine & Fire**	81	15915	10	–24	–19	5.1	60	0.5	6072b*	265b	24027*	8.5	63
33	**Seibu Railway**	83	15645	36	0	6	43.9	422	0.1	2600	37	4246	10.4	57
34	**All Nippon Airways**	85	15424	11	–13	–7	12.9	304	0.3	4090	51	5637	4.3	56
35	**Tokyo Gas**	86	15143	5	–28	–24	6.4	57	0.6	4786	265	5642*	11.2**	12
36	**Asahi Glass**	87	15142	13	-21	–16	5.1	50	0.5	7175	388	6698	10.2	26
37	**Daiwa Securities**	88	14954	11	–23	–19	2.8	15	0.8	NA	486d	33795	18.4	62
38	**Nintendo**	89	14467	138	177	194	NA	39	0.2	1576b	216bf	1832	NA	46
39	**Daiwa Bank**	90	14230	10	–16	–11	5.1	46	0.5	NA	217bd*	96304*	11.1**	61
40	**Tokyu Corp.**	92	14119	13	8	15	9.0	239	0.3	2376	58	6681	3.7	57
41	**Mitsubishi Electric**	95	13950	7	–23	-18	3.3	28	0.9	19563b	504b	17758	12.0	34
42	**Mitsubishi Estate**	96	13911	11	–36	–31	5.6	57	0.5	1904	241	7232	9.8	64
43	**Nikko Securities**	100	13368	9	–30	–25	2.8	17	0.9	NA	387d	24257	16.8	62
44	**Yasuda Trust & Banking**	101	13351	13	2	9	4.5	34	0.4	NA	401	69868	13.2	62
45	**Kawasaki Steel**	102	13341	4	–41	–38	5.2	39	0.8	7490	318	10877*	13.2**	25
46	**Mitsui Trust & Banking**	104	12975	11	–24	–19	4.0	28	0.5	NA	446	80680	14.4	62
47	**Sharp**	105	12666	12	20	28	3.3	60	0.6	8265	191	11587	5.4	41
48	**Sanyo Electric**	106	12644	7	–2	4	2.7	113	0.8	8994	110	13307	2.4	41
49	**Kirin Brewery**	107	12568	13	–8	–2	3.9	63	0.4	8252	201	7825	6.2	43
50	**Kajima**	109	12548	13	–9	–3	7.2	92	0.6	10372b	188b	11147	7.8	32
51	**Sumitomo Metal Industries**	111	12477	4	–34	–30	4.7	31	0.8	8029	381	12867	15.2	25
52	**Nippondenso**	112	12437	15	3	9	2.8	39	0.6	8554	318	8501	7.3	37
53	**Kobe Steel**	117	11804	4	–31	–26	7.0	66	0.8	8206	167	13037	10.7	25
54	**Osaka Gas**	118	11776	5	–22	–17	5.3	54	0.7	3919	219	5514	9.8	12
55	**Fuji Photo Film**	122	11536	27	2	9	2.3	21	0.3	6099	547	7691a	10.7	46
56	**Yamaichi Securities**	125	11399	9	–26	–21	2.7	17	0.9	NA	328d	22812	16.1	62
57	**Honda Motor**	126	11358	12	–16	–11	1.7	21	0.8	22904	637	16038	8.0	42
58	**Ito-Yokado**	129	11334	28	9	16	4.1	30	0.5	10897b	384b	5304	14.0	54
59	**Shimizu Construction**	131	11230	14	–3	3	7.2	107	0.4	8508	102	11298	6.7	32
60	**Fanuc**	134	11000	46	2	9	5.1	80	0.3	991	137	2533	6.3	35
61	**Kinki Nippon Railway**	135	10986	7	–23	–18	9.0	108	0.5	4799	101	7309	8.3	57
62	**Kyowa Bank**	137	10889	8	–10	–4	4.3	43	0.6	NA	237*	91118*	10.1	61
63	**Seven-Eleven Japan**	139	10708	50	25	33	11.4	66	0.3	4503*	158	1287*	17.2	54
64	**Mitsui Real Estate Development**	144	10616	13	–23	–18	4.0	40	0.5	6959b	267b	16451	10.1	64
65	**Tohoku Electric Power**	145	10611	21	–19	-14	3.4	49	1.5	6788*	217	14876*	6.9	12
66	**Mitsui & Co.**	150	10448	7	6	13	3.7	44	0.6	128077b	239b	41535	8.6	59
67	**Kubota**	151	10353	7	–17	–12	5.0	96	0.6	5390b	50b	5464	5.2	38
68	**Ishikawajima-Harima Heavy Inds.**	153	10229	8	–4	2	11.6	116	0.3	5160	88	7453	9.9	38
69	**Nippon Oil**	154	10105	8	–23	–18	3.1	54	0.5	14725	185	11672	5.8	11
70	**Takeda Chemical Industries**	155	10081	12	–32	–28	3.4	39	0.6	4510	255	5821	8.7	45
71	**Dai Nippon Printing**	157	10008	13	–20	–15	3.2	41	0.5	7024b	269b	6250	7.8	52
72	**Kyushu Electric Power**	163	9773	21	-20	–15	3.0	45	1.6	6821*	235	19281*	6.7	12
73	**Toyo Trust & Banking**	165	9729	12	–3	3	4.4	29	0.4	NA	311	48277	15.2	62
74	**Hanwa**	166	9631	26	51	60	5.1	60	0.3	4352*	110	22346*	8.5	54
75	**Taisei**	169	9559	9	–21	–16	5.0	86	0.6	9926	110	12847	5.8	32
76	**Saitama Bank**	170	9558	9	–16	-11	3.8	44	0.5	NA	190*	84048*	8.8	61

Footnotes on page 115

Curtis Strange. U.S. Open Champion.

JUST LIKE YOU, HE'S TRYING TO MANAGE A BUSINESS AND LEAVE A LITTLE TIME FOR GOLF.



When you spend lot of time traveling business, keeping top of your game is portant. And in the game of busiess, you can't afford to miss a stroke, call, an opportunity.

So it's no surprise that SkyTel's™ tionwide pager is used by winners all fields. From U.S. Open chamon Curtis Strange to the biggest ayers in the Fortune 500.®

Here's how it works.

Whenever you leave town, you rry the compact (2.5 oz.) SkyPager.® hen when someone needs to reach ou, they simply dial SkyTel's 800 umber and punch in your code.

Seconds later, our nationwide satellite system relays the message to your SkyPager. With unmatched coverage, SkyTel will reach you in virtually any major U.S. city. Our network uses an exclusive frequency that penetrates concrete and steel with ease.

There's also a feature called SkyTalk,™ which allows callers to leave you detailed voice messages while instantly notifying you of the call.

So you'll spend less time checking in with the office. Which will free you for more important things. Like lowering your handicap.

1-800-456-3333. EXT 1218

Or fax to (601) 354-9036. Or mail to SkyTel, 1850 M St. NW, Suite 800, Washington, DC 20036.

Name _____

Company _____ Title _____

Address _____

City _____ State _____ Zip _____

Phone(O) _____

Phone(H) _____

SkyTel™

AN UNFAIR BUSINESS ADVANTAGE®

BW-CS-071690

THE GLOBAL 1000

COUNTRY RANK		GLOBAL 1000 RANK	MARKET VALUE U. S. $ MIL.	PRICE PER SHARE U. S. $	% CHANGE FROM 1989 (U. S. $)	% CHANGE FROM 1989 (LOCAL)	PRICE/ BOOK VALUE RATIO	P/E RATIO	YIELD %	SALES U. S. $ MIL.	PROFITS U. S. $ MIL.	ASSETS U. S. $ MIL.	RETURN ON EQUITY %	INDU CO
77	Kyocera	172	9526	52	49	59	3.5	43	0.6	2764b	222b	3423	8.2	3
78	Sumitomo Corp.	177	9324	9	1	8	2.7	37	0.6	97315	234	31038	7.3	5
79	Bank of Yokohama	180	9201	9	–17	–11	3.9	55	0.4	NA	133*	71503*	7.1	6
80	Joyo Bank	183	9026	12	65	75	6.0	70	0.3	NA	113*	44404*	8.6	6
81	Ajinomoto	184	9008	14	–28	–23	4.1	86	0.5	3348	104	4604	4.8	4
82	C. Itoh	188	8897	6	–10	–5	2.7	40	0.5	104799	200	38587	6.8	5
83	Kawasaki Heavy Industries	189	8825	7	–20	–14	14.3	115	0.5	5751	77	6529	12.4	3
84	Asahi Chemical Industry	197	8526	6	–28	–24	3.9	37	0.7	6650	227	6590	10.7	2
85	Nippon Express	198	8506	8	–24	–19	9.3	75	0.4	8994b	114b	5139	12.5	5
86	Ohbayashi	199	8484	11	–11	–5	6.7	115	0.4	6230	71	8875	5.8	3
87	Canon	200	8451	11	0	6	2.3	33	0.7	8869	251	10740	7.0	4
88	Matsushita Electric Works	205	8252	14	–7	–1	3.6	39	0.6	5856	209	5639	9.3	3
89	Marubeni	206	8250	6	–15	–9	3.7	39	0.6	123219b	221b	44981	9.3	5
90	Bridgestone	214	8067	11	–9	–3	3.0	127	0.8	11088	66	9189	2.4	3
91	Komatsu	220	7934	8	–16	–10	2.6	44	0.7	5823b	179b	7412	5.8	3
92	Toppan Printing	223	7758	12	–13	–7	3.0	37	0.5	6007	190	5170	7.9	5
93	Toray Industries	224	7654	6	–23	–18	3.1	34	0.9	5173	221	6349	9.1	2
94	Matsuzakaya	225	7647	49	1	8	19.8	222	0.1	3341	34	1350	8.9	5
95	Chugoku Electric Power	227	7630	21	–19	–13	3.2	46	1.6	5258*	204	14167*	7.0	1
96	Sumitomo Chemical	228	7611	5	–30	–26	6.4	33	0.8	6177	230	6450a	19.4	2
97	Sekisui House	229	7563	13	–9	–3	3.4	37	0.9	5022	169	6015	9.3	3
98	Mitsubishi Kasei	231	7455	5	–35	–31	5.2	50	0.7	3847d	71	9343	10.4	2
99	Sumitomo Electric Industries	234	7390	11	–4	2	4.0	42	0.5	6565b	175b	5000	9.5	3
100	Hokkaido Takushoku Bank	236	7387	8	4	11	4.5	49	0.5	NA	110b*	65955*	9.1	6
101	Daiwa House Industry	238	7356	16	3	9	5.1	47	0.5	3689	147	3999	11.0	3
102	Nippon Yusen	239	7334	6	–14	–9	5.0	384	0.4	4267	19	4671*	1.3**	5
103	KDD	244	7172	112	–17	–11	4.1	77	0.3	1700b*	93b	3026*	5.3	5
104	Pioneer Electronic	248	7085	39	72	83	5.3	37	0.3	3361b	194b	2122	14.5	4
105	Tonen	249	7046	11	–15	–10	2.8	38	1.5	4280	167	4144a	7.3	1
106	Isuzu Motors	257	6904	7	5	12	7.3	63	0.5	8757	109	4736*	11.6**	3
107	Marui	258	6896	21	6	13	3.6	39	0.6	3158	166	3874	9.2	5
108	Yasuda Fire & Marine	261	6814	8	–15	–10	5.6	63	0.6	4477b*	109b	18348*	9.0	6
109	Mitsui O. S. K. Lines	273	6606	6	–10	–4	7.9	178	0.4	2934	37	4887	4.5	5
110	Shizuoka Bank	274	6603	8	–1	6	3.3	42	0.5	NA	133*	40760*	7.9	6
111	Nisshin Steel	275	6571	6	–41	–38	5.9	30	0.6	2902	205	5231	19.4	2
112	Nissan Fire & Marine	277	6514	32	52	62	26.2	264	0.1	1320*	25	4298*	9.9	6
113	Mazda Motor	278	6508	6	–14	–8	2.7	56	0.8	15755b	154b	8634	4.9	4
114	Tobu Railway	290	6120	8	–30	–25	6.8	157	0.4	1477	39	4646	4.3	5
115	Nippon Mining	292	6108	7	7	14	6.2	66	0.5	5665	90	6143	9.3	1
116	Sankyo	294	6079	17	–2	4	5.2	65	0.3	2797	93	2672	8.0	4
117	Mitsukoshi	297	6057	13	–26	–21	9.2	127	0.3	6552b	48b	2352*	7.2**	5
118	Hitachi Zosen	306	5868	6	–3	3	14.3	628	NA	1641	9	3254	2.3	38
119	Shikoku Electric Power	311	5751	21	–19	–14	3.2	49	1.6	2567*	127	6793*	6.4	1
120	Chiba Bank	313	5731	8	–13	–8	3.0	47	0.5	NA	104*	50830*	6.4	6
121	Hokuriku Bank	314	5710	8	0	7	3.4	47	0.4	NA	106*	45835*	7.3	6
122	Daiei	320	5637	15	–18	–13	7.6	104	0.7	12736	53	6640	7.3	5
123	Toyoda Automatic Loom Works	321	5627	20	40	49	5.1	58	0.4	2869*	85	2040*	8.9	38
124	Isetan	324	5610	26	51	60	6.8	77	0.3	1116d	24	1857	8.9	5
125	Honshu Paper	326	5595	17	121	136	14.1	191	0.2	2829	26	3251	7.4	23
126	Yamanouchi Pharmaceutical	328	5582	19	–24	–19	4.7	27	0.4	1733b	209b	2547	17.6	45
127	Odakyu Electric Railway	329	5578	8	–20	–15	7.9	139	0.4	2179	39	4103	5.7	57
128	Hankyu Corp.	331	5555	7	–10	–4	7.6	91	0.5	1864	57	4545	8.3	57
129	Showa Denko	334	5517	5	–37	–33	10.2	108	0.7	3729	49	3871a	9.4	22
130	Kao	336	5502	11	–9	–4	3.5	47	0.5	4070b	117b	3494	7.5	44
131	Kumagai Gumi	338	5473	8	–33	–28	2.6	99	0.7	3171d	27	10714a	2.6	32
132	Sekisui Chemical	339	5458	10	–3	3	4.4	31	0.5	4129	151	3716	14.3	21
133	TDK	342	5410	43	17	25	2.4	36	0.6	3138b	152b	3284	6.6	35
134	Toyo Sash	344	5388	32	–17	–12	4.6	31	0.1	1346d	80	2659	14.5	21
135	Sumitomo Metal Mining	346	5348	11	9	16	10.6	53	0.4	3295	89	3036	19.9	24
136	Mitsubishi Motors	349	5325	6	–24	–19	3.2	39	0.6	14350	125	9827	8.2	42
137	Nagoya Railroad	353	5282	7	–22	–17	7.0	110	0.4	2600	46	6945	6.3	57
138	Taisho Marine & Fire Insurance	357	5248	8	–19	–14	4.6	49	0.6	2921b*	108b	11889*	9.4	63
139	Mitsui Engineering & Shipbuilding	358	5210	7	5	11	9.4	LOSS	0.4	1346	–29	3062	NEG	38
140	Fuji Electric	359	5167	7	–12	–7	5.7	82	0.6	4464	62	4720	7.0	34
141	Asahi Breweries	369	5045	13	–9	–4	4.7	195	0.3	5311	26	4907	2.4	43
142	Teijin	372	4957	5	–18	–13	3.0	36	0.9	3637	134	5459	8.3	22
143	Toto	376	4877	15	–11	–5	5.2	94	0.4	768d	49	1918	5.5	21
144	Fujita Corp.	379	4850	11	–20	–15	4.8	86	0.5	3597	56	7263	5.6	32
145	Sumitomo Marine & Fire	381	4825	8	–16	–11	4.7	49	0.6	2225*	93	10471*	9.7	63
146	Ashikaga Bank	382	4823	[illegible]	5	12	3.7	40	0.4	NA	106*	37438*	9.3	61
147	Nissho Iwai	385	4796	6	–5	2	4.9	50	0.5	75153	85	24342	9.8	59
148	Ricoh	387	4770	7	–15	–9	2.2	40	0.9	4786	117	4794	5.6	33
149	Oji Paper	389	4746	[illegible]	–41	–38	3.3	28	0.7	4208b	169b	4398	11.7	23
150	Daishowa Paper	390	4731	22	10	17	11.5	84	0.2	2390	53	3634*	13.7**	23
151	Taisho Pharmaceutical	394	4681	15	–6	0	4.6	35	0.9	965*	134	1537*	13.0	45
152	Janome Sewing Machine	398	4634	30	38	47	17.3	311	0.1	486	15	629	5.6	41
153	Bank of Hiroshima	401	4622	8	21	28	4.5	55	0.4	NA	74*	35344*	8.2	61
154	Hokkaido Electric Power	402	4621	21	–16	–11	3.3	36	1.5	2823*	150	8875*	9.1	12
155	Jusco	404	4608	15	12	19	4.0	59	0.8	7759	77	4685	6.8	54
156	Hokuriku Electric Power	405	4608	21	–16	–11	2.9	42	1.5	2350	108	6216	6.8	12

How Wisconsin Power & Light Company protects its pension fund.

As one of the country's leading utilities, Wisconsin Power & Light Company has become very adept at planning for its future.

Being forward looking, they were quick to see the advantages of using S&P 500 futures to help their pension fund react to market changes faster and more efficiently. That helps reduce volatility and smooth out returns.

In fact, for the past three years, Wisconsin Power & Light Company's pension fund has reduced its trading cost and improved its overall returns with the use of S&P 500 futures. And that's helping ensure a brighter future for thousands of future retirees.

So if you're interested in helping insulate your company's pension fund from sudden shocks, and generating better returns, plug into S&P 500 futures and options at the Chicago Mercantile Exchange. We help smart businesses manage risk.

CHICAGO MERCANTILE EXCHANGE

The Exchange of Ideas

1-800-331-3332 (US toll-free), 1-312-930-2351 (Chicago), 44-71-920-0722 (London), 813-595-2251 (Tokyo)

"Standard & Poor's," "Standard & Poor's 500," "S&P," and "500" are service marks of the Standard & Poor's Corporation and have been licensed for use by the Chicago Mercantile Exchange.

NEVER

UNDERESTIMATE

THE POWER

OF CASH.

It's no secret that when we bought
Great Northern Nekoosa, we took on some debt.

Wall Street noticed.

But it's also no secret that we acquired a world-class paper company with a very large cash flow.

Wall Street noticed.

Add to that our own substantial cash flow, and the picture gets clearer. Because the simple fact is, the new Georgia-Pacific will be capable of generating 1.5 billion dollars in annual cash flow from operations. And when combined with the possible sale of non-strategic assets, we should retire our debt far quicker than many expected.

And that's the sort of news all kinds of people notice.
Especially our shareholders.

Georgia-Pacific

THE GLOBAL 1000

COUNTRY RANK		GLOBAL 1000 RANK	MARKET VALUE U. S. $ MIL.	PRICE PER SHARE U. S. $	% CHANGE FROM 1989 (U. S. $)	% CHANGE FROM 1989 (LOCAL)	PRICE/ BOOK VALUE RATIO	P/E RATIO	YIELD %	SALES U. S. $ MIL.	PROFITS U. S. $ MIL.	ASSETS U. S. $ MIL.	RETURN ON EQUITY %	INDUSTRY CODE
157	Nippon Fire & Marine	407	4602	8	4	10	5.1	60	0.6	1891*	71	8889*	8.5	63
158	Bank of Fukuoka	410	4553	8	15	22	3.7	37	0.4	NA	104*	33690*	9.8	61
159	Hachijuni Bank	414	4514	8	3	10	4.6	46	0.4	NA	87*	29725*	9.9	61
160	Matsushita Communication Industrial	416	4485	24	18	25	4.3	56	0.3	2376	79	1612	7.6	34
161	Ono Pharmaceutical	418	4470	36	20	27	8.0	56	0.2	472*	81	1180*	14.4	45
162	Shiseido	421	4423	16	30	38	2.7	59	0.5	2994b	75b	3447	4.5	45
163	Fujisawa Pharmaceutical	426	4378	14	13	20	3.3	73	0.4	1582	57	2432	4.5	45
164	Keio Teito Electric Rail	429	4359	7	–21	–16	6.9	105	0.4	2285	41	3360	6.5	57
165	Takashimaya	434	4335	20	–9	–3	7.8	34	0.3	6282	125	3538	22.7	54
166	Daiichi Pharmaceutical	436	4299	16	–9	–3	4.8	33	0.4	1320	128	1822	14.5	45
167	Toyo Seikan Kaisha	445	4249	25	30	38	2.9	28	0.2	4411	154	3399	10.4	26
168	Nichii	447	4241	15	–13	–7	3.4	46	0.8	6827	89	5365	7.4	54
169	Nagasakiya	451	4188	29	–9	–4	10.8	138	0.3	2718	30	2026	7.8	54
170	Furukawa Electric	453	4178	6	–32	–27	4.0	51	0.6	4687	77	4322	7.8	37
171	Mitsubishi Metal	454	4173	6	–22	–17	5.5	51	0.6	5587	75	4801	10.7	24
172	Victor Co. of Japan	455	4161	17	–1	5	2.6	34	0.5	5692b	121b	3362	7.5	41
173	Ebara	456	4152	15	–6	0	6.3	180	0.4	1733	22	1958	3.5	38
174	Oki Electric Industry	466	4108	7	–13	–7	4.1	39	0.7	3650	100	3828	10.3	34
175	Nippon Seiko	467	4095	7	–8	–3	2.9	51	0.8	1983d	70	2885	5.7	37
176	Sumitomo Realty & Development	468	4094	11	–15	–9	2.9	41	0.5	1379	98	8337	6.9	64
177	Nippon Kangyo Kakumaru	478	4048	10	–19	–14	2.9	25	0.6	NA	79d	6980	11.6	62
178	Ube Industries	481	4015	5	–22	–17	9.1	31	0.7	3794	128	5498	29.1	26
179	Kyowa Hakko	482	4014	9	–17	–12	4.5	45	0.4	1950	89	2378	10.1	45
180	Secom	483	4013	40	18	26	6.2	79	0.3	840a	49a	1304a	7.8	52
181	Daikyo Kanko	484	3995	22	36	44	4.2	37	0.7	3499b*	108b	7860*	11.4	64
182	Hyogo Bank	487	3965	12	27	35	4.7	89	0.3	NA	37*	23351*	5.3	61
183	Gunma Bank	491	3958	8	14	21	3.7	41	0.4	NA	80*	26797*	8.9	61
184	Omron Tateisi Electronics	493	3940	17	–8	–2	3.2	30	0.5	2442	125	2399	10.4	34
185	Mitsubishi Petrochemical	494	3939	8	–23	–18	4.4	20	0.7	696d	47	3536	22.0	22
186	Keihin Electric Express Railway	499	3904	8	–33	–29	6.8	119	0.4	1379	32	3285	5.7	57
187	Nippon Kogaku	502	3877	11	2	9	5.0	51	0.5	1667	75	1779	9.8	46
188	Sumitomo Heavy Industries	505	3853	7	–19	–14	8.8	139	NA	2422	28	3116	6.3	38
189	Tokyo Steel Mfg.	508	3836	26	3	9	4.8	27	0.3	1372b*	144b	1612b*	17.8	25
190	Cosmo Oil	510	3831	7	–3	3	8.4	53	0.5	8337	69	6973	15.7	11
191	Toyobo	514	3786	5	–13	–7	6.3	78	0.6	3302	48	3229	8.1	47
192	Dainippon Ink & Chemicals	515	3784	5	–25	–21	3.4	75	0.8	4674	48	4877	4.6	22
193	Mitsui Toatsu Chemicals	516	3778	5	–33	–28	7.7	32	0.7	3125	106	3817	24.4	22
194	New Japan Securities	519	3774	9	–25	–20	2.8	40	0.8	NA	91d	8331	7.0	62
195	Bank of Kyoto	521	3766	16	12	20	7.0	71	0.2	NA	49*	19405*	9.8	61
196	NGK Insulators	523	3756	11	–9	–4	4.5	57	0.6	1306	62	1600	7.9	37
197	Hasegawa Komuten	529	3734	9	–11	–6	2.4	45	0.8	3020	73	6427	5.3	32
198	Shionogi	530	3734	11	–5	1	3.5	48	0.5	1917	77	2019	7.3	45
199	Kawasaki Kisen	536	3690	6	–6	0	10.8	LOSS	NA	2554	–1	2874	NEG	58
200	Toyo Menka Kaisha	537	3687	6	–3	3	5.0	92	0.6	37937	40	11685	5.4	59
201	Konishiroku Photo Industry	542	3654	10	25	33	3.2	273	0.6	3125	13	3374	1.2	46
202	Tokyo Electron	543	3652	30	39	48	6.8	57	0.3	1136	59	949a	11.8	35
203	Shin-Etsu Chemical	552	3562	11	–17	–12	3.2	19	0.4	2646	183	3076	16.9	22
204	Korakuen	553	3559	24	–17	–12	9.2	185	0.3	546	18	2585	5.0	53
205	Kokuyo	557	3526	27	16	24	6.1	50	0.4	1694	70	1234a	12.3	52
206	Hitachi Metals	559	3522	10	–14	–8	3.8	53	0.5	2422	66	2453	7.2	25
207	Hattori Seiko	562	3501	33	118	132	14.3	LOSS	0.2	2619	–20	2201	NEG	46
208	Sapporo Breweries	567	3483	10	–16	–11	4.5	59	0.3	3158	59	3259a	7.5	43
209	Tokyu Land	568	3479	8	–7	–1	5.6	106	0.4	1996	32	3819a	5.3	64
210	Kyushu Matsushita Electric	573	3455	23	15	22	7.0	59	0.3	1595b*	60b	1036*	11.8	41
211	Chiyoda Corp.	577	3435	18	46	56	6.1	LOSS	NA	1287	–39	2051a	NEG	38
212	Tokyo Broadcasting System	587	3359	19	11	18	4.1	43	0.3	1280b*	77b	1379*	9.5	51
213	Keisei Electric Railway	588	3353	12	–32	–28	LOSS	48	NA	1103	70	1932	NEG	57
214	Murata Mfg.	589	3348	19	–3	3	2.2	23	0.5	1628b	125b	2533	9.3	35
215	Daikin Industries	590	3342	13	0	6	5.4	44	0.5	2140	75	1586	12.4	38
216	Chugai Pharmaceutical	592	3327	14	9	16	4.8	71	0.4	847	47	1301	6.8	45
217	Fujita Tourist Enterprises	593	3322	27	35	44	21.1	182	0.1	504a	15a	646a	11.6	53
218	Toho Co.	594	3319	236	39	48	7.5	69	0.3	952	47	1212	10.8	53
219	Amada	595	3317	12	–19	–14	2.8	49	0.9	1044	58	2161	5.7	38
220	Koito Mfg.	599	3295	21	–30	–25	8.6	137	0.3	1063	24	832	6.3	37
221	Dai-Tokyo Fire & Marine	600	3283	8	–3	3	4.8	50	0.6	1969*	58	7208*	9.5	63
222	Tokyu Department Stores	601	3281	12	23	31	4.9	84	0.4	2941b	38b	1937	5.8	54
223	Aoki	604	3265	8	–18	–13	2.9	75	0.7	2252	40	3981	3.9	32
224	Hazama-Gumi	607	3246	10	–5	1	5.7	99	0.5	3466*	33	3234a*	5.8	32
225	Arabian Oil	608	3245	63	31	39	9.2	LOSS	0.4	1385	–10	869	NEG	11
226	Sato Kogyo	609	3244	13	–27	–22	12.2	153	0.3	2541	21	2530a*	8.0**	32
227	Nanto Bank	619	3199	12	29	38	4.1	44	0.3	NA	69	18585	9.3	61
228	Sanrio	624	3159	42	38	47	6.3	74	0.4	624	40	1971	8.6	54
229	Okumura	639	3103	13	–1	5	4.5	65	0.5	1937*	45	2798*	6.9	32
230	Nichido Fire & Marine	641	3097	7	–10	–4	4.7	50	0.6	1884*	57	8935*	9.4	63
231	Mitsubishi Rayon	644	3074	5	–19	–14	4.3	81	0.7	1950	37	2439	5.3	22
232	Orient Finance	650	3046	9	–12	–7	2.2	29	0.9	NA	106b*	36171*	7.7	62
233	Sagami Railway	661	3005	8	–26	–21	8.2	160	0.4	1083	19	2585	5.1	57
234	Kinki Electrical Construction	663	2984	22	18	25	3.5	42	0.3	2212*	63	2441*	8.3	32
235	Nishi-Nippon Bank	676	2910	7	33	41	3.3	51	0.4	NA	52*	21158*	6.6	61
236	Chugoku Bank	679	2904	14	2	8	2.6	32	0.3	NA	82*	23147*	8.2	61

Footnotes on page 115

BOLDER COMMUNICATIONS FOR THE ROCK

The Crown Colony of Gibraltar is poised at the narrow entrance to the Mediterranean Sea. It is also poised on the verge of greatness as a world-class offshore financial center.

NYNEX International Company and the Government of Gibraltar have entered into a joint venture to own, operate and modernize the "Rock's" domestic telecommunications system.

This totally digital, fiber-optic network will increase capacity and support sophisticated ISDN-based services, along with video teleconferencing and high-speed facsimile.

In the very near future, the banks and other financial institutions that are locating in Gibraltar can look forward to the advanced communications services they need to compete successfully in the global economy.

The word is spreading. When the world needs bolder communications, NYNEX International Company has the commitment, experience and flair to make them happen.

Contact a NYNEX office for more information about our international artistry, and the impact it can have on *your* business.

NYNEX
International Company

United States
4 West Red Oak Lane
White Plains, New York 10604

Switzerland
15, rue Toepffer
CH-1206 Geneva

United Kingdom
20 Upper Ground, Ground Floor
London, SEI 9PN

THE GLOBAL 1000

COUNTRY RANK		GLOBAL 1000 RANK	MARKET VALUE U. S. $ MIL	PRICE PER SHARE U. S. $	% CHANGE FROM 1989 (U. S. $)	% CHANGE FROM 1989 (LOCAL)	PRICE/ BOOK VALUE RATIO	P/E RATIO	YIELD %	SALES U. S. $ MIL.	PROFITS U. S. $ MIL.	ASSETS U. S. $ MIL.	RETURN ON EQUITY %	INDUSTRY CODE
237	Mitsubishi Oil	682	2900	8	2	8	6.6	50	0.4	4477	57	3782	13.2	11
238	Yakult Honsha	688	2873	16	10	17	3.8	33	0.7	965	76	1266	11.5	44
239	Hitachi Cable	693	2860	8	–20	–15	3.2	43	0.8	2002	66	1717	7.4	37
240	NTN Toyo Bearing	694	2856	6	–10	–5	3.7	44	1.0	932d	32	2479	8.3	37
241	Aisin Seiki	696	2853	11	–7	–1	2.5	34	0.7	3873	79	2688	7.2	37
242	Casio Computer	698	2835	11	7	13	3.1	63	0.8	1779	44	2199	4.9	46
243	Eisai	699	2834	12	–14	–8	3.3	34	0.5	1293b*	84b	1772*	9.9	45
244	Yokogawa Electric	700	2834	11	–21	–16	2.8	40	0.4	1490	68	1820	6.9	35
245	Nissin Food Products	706	2806	21	–5	1	2.7	44	0.7	1090b	64b	1556	6.2	44
246	Inax	708	2796	12	–6	0	4.2	50	0.4	1470*	56	1216a*	8.6	21
247	Nippon Sheet Glass	709	2794	6	–16	–11	3.5	48	0.7	1582	54	1932	7.3	26
248	Nippon Light Metal	710	2790	6	–5	1	13.1	29	0.5	3466	97	3088	45.0	24
249	Mitsubishi Gas Chemical	716	2759	6	–21	–16	3.4	43	0.7	1832	62	2296	7.8	22
250	Seiyu	717	2756	15	7	13	4.6	55	0.7	7654b	50b	6293	8.4	54
251	Onoda Cement	721	2746	6	–20	–15	4.5	36	0.6	2586	77	3374	12.7	21
252	Jujo Paper	725	2725	6	–40	–36	3.1	26	0.8	3276	104	3755	12.2	23
253	Minebea	728	2720	7	–14	–8	2.3	72	1.1	1503	38	3305a	3.2	37
254	Daido Steel	729	2719	6	–45	–41	3.9	55	0.6	2718	49	2665	7.0	25
255	Seventy-Seven Bank	731	2716	7	4	10	3.3	36	0.5	NA	69*	21683*	9.2	61
256	NCR Japan	732	2715	12	–9	–3	5.6	45	0.7	762*	65	760*	12.5	33
257	Fukuoka City Bank	733	2711	13	35	43	4.0	53	0.2	NA	51*	14029*	7.5	61
258	Tobishima	735	2705	12	18	25	7.0	117	0.4	2678	22	4806	6.0	32
259	Kuraray	736	2704	10	9	16	7.0	71	0.4	1989	35	2146	9.9	22
260	Nippon Television Network	737	2693	215	37	46	4.8	45	0.2	1195	57	1000	10.6	51
261	Makita Electric	738	2690	17	39	48	2.8	28	0.8	512d	53	1207	9.7	34
262	Dainippon Pharmaceutical	739	2689	18	8	15	7.6	108	0.3	561d	21	798	7.0	45
263	Toho Gas	742	2683	4	–14	–9	4.7	50	0.8	1306	53	1634	9.3	12
264	Navix Line	753	2650	7	–14	–8	55.2	259	NA	807	11	1186	21.3	58
265	Kandenko	754	2648	25	6	13	4.6	42	0.2	2692*	59	1939*	11.2	32
266	Yamazaki Baking	755	2646	12	8	15	3.1	40	0.5	2816	66	1619a*	7.7**	44
267	Hino Motors	762	2630	7	–8	–2	4.4	47	0.5	4595b*	65b	1844*	9.2	38
268	Chiyoda Fire & Marine	765	2614	7	–1	6	4.9	48	0.6	1740*	50	5897*	10.3	63
269	Mitsui Mining & Smelting	767	2607	5	–14	–8	16.5	69	NA	2068	38	2402	23.8	24
270	Fuji Heavy Industries	769	2603	4	–40	–36	1.4	55	1.2	4418	45	4787	2.6	42
271	Sankyo Aluminium	771	2588	12	67	78	6.3	83	0.3	1490	28	1493	7.6	21
272	Alps Electric	772	2586	15	21	28	3.0	72	0.7	2475	36	2543	4.2	35
273	Kyodo Printing	775	2576	29	14	22	23.5	190	0.1	762	14	455	12.4	52
274	Daimaru	779	2569	10	17	24	6.8	129	0.3	4983	19	2107*	5.2**	54
275	Uny	784	2554	14	7	14	2.7	43	0.8	4142	59	2436	6.4	54
276	Mitsubishi Mining & Cement	785	2554	6	–15	–10	5.1	76	0.7	2252	33	1992*	6.7**	21
277	Sanyo Securities	794	2516	10	NA	NA	3.1	16	0.7	NA	77d	6194	19.9	62
278	Matsushita-Kotobuki Electric	797	2512	16	3	10	2.8	42	0.5	1490*	56	1285*	6.6	41
279	Penta-Ocean Construction	798	2512	8	–18	–12	9.7	137	0.5	2330*	20	2086*	7.1	32
280	Mochida Pharmaceutical	801	2505	25	3	10	10.0	156	0.2	327*	15	395*	6.4	45
281	Fukuyama Transporting	806	2486	10	–11	–6	4.4	44	0.7	1136*	43	1376*	9.9	57
282	Nippon Meat Packers	807	2485	12	–16	–10	2.8	32	0.7	3893	75	2364	8.9	44
283	Green Cross	808	2485	12	10	17	5.0	LOSS	0.3	591	–2	851	NEG	45
284	Kanebo	809	2481	5	–16	–11	21.1	84	0.7	4221	29	3218*	25.1**	47
285	Mitsui Petrochemical Industries	810	2471	8	–40	–36	3.5	22	0.5	1917	109	2923	16.0	22
286	Yamaha (Nippon Gakki)	811	2470	13	–1	5	2.6	61	0.5	3276b	41b	2139	4.2	46
287	Nippon Electric Glass	812	2469	17	–5	2	4.6	38	0.3	1280*	51	1646*	12.2	37
288	Nippon Shokubai Kagaku Kogyo	813	2468	13	–7	–2	4.9	37	0.4	978	67	1115	13.3	22
289	Daicel Chemical Industries	818	2443	7	–13	–7	3.3	39	0.6	1313	61	2001	8.5	22
290	Advantest	821	2429	36	14	21	4.8	73	0.2	487	32	898	6.6	35
291	Meiji Seika	825	2416	6	–23	–18	3.6	117	0.6	1937	21	1326	3.1	44
292	Suzuki Motor	827	2412	6	–8	–2	2.0	66	0.8	6453b	37b	4098	3.0	42
293	Nippon Shinpan	832	2406	8	–20	–14	2.0	25	0.9	NA	94	33821	7.9	62
294	Hitachi Chemical	836	2401	12	–8	–2	6.0	69	0.4	2921	34	1960	8.7	22
295	Hokkaido Bank	841	2386	6	NA	NA	3.1	36	0.6	NA	60*	20009*	8.5**	61
296	Showa Shell Sekiyu	842	2384	9	–15	–10	5.6	44	0.5	9269	54	4933a	12.5	11
297	Mori Seiki	844	2382	25	11	18	4.6	44	0.5	504	45	789	10.4	38
298	Kanegafuchi Chemical Industry	849	2368	7	–5	1	3.5	34	0.6	1523	69	1513	10.3	22
299	Tosoh Corp.	850	2357	5	–21	–16	4.6	55	0.6	1681	41	2862	8.4	22
300	Nichirei	855	2347	8	–13	–7	5.5	81	0.5	2757	28	1513	6.8	44
301	Kakusai Electric	857	2342	32	57	67	9.1	71	0.3	683	33	446	12.8	34
302	Yamato Transport	861	2337	9	–30	–26	3.2	87	0.7	2626b	27b	1503	3.6	57
303	Sanyo-Kokusaku Pulp	865	2329	5	–38	–34	3.0	31	0.9	2902	71	2782	9.5	23
304	Japan Radio	866	2324	19	48	58	7.2	65	0.2	1096	33	1190	11.0	34
305	Unitika	867	2322	5	–14	–9	12.9	96	0.5	2179	24	2152	13.5	22
306	Nihon Cement	871	2308	7	–17	–11	3.5	30	0.6	1812	69	2687	11.5	21
307	Maeda Construction	875	2305	13	3	9	2.9	61	0.4	2606*	35	2929*	4.7	32
308	Banyu Pharmaceutical	876	2305	9	–21	–16	2.5	51	0.6	631	45	1220	4.9	45
309	Fujikura	877	2299	7	–22	–17	3.6	66	0.6	1628	35	1826	5.5	37
310	Japan Steel Works	879	2292	6	–28	–23	10.3	241	NA	762	10	1052	4.3	38
311	Kansai Paint	880	2284	9	NA	NA	6.4	73	0.4	945*	26	1016*	8.7	22
312	Olympus Optical	882	2279	10	18	26	2.8	41	0.8	1438b	55b	1622	6.7	46
313	Denki Kagaku Kogyo	907	2231	5	–28	–24	3.7	44	0.8	1700	50	2671	8.3	22
314	Nippon Hodo	908	2230	19	–3	3	3.5	56	0.4	1615*	42	1391*	6.3	32
315	Hitachi Maxell	911	2209	22	17	24	2.1	33	0.5	1103	66	1423	6.3	46
316	Teikoku Oil	914	2202	8	6	12	3.8	70	0.4	325	32	840a	5.5	11

Footnotes on page 115

THE GLOBAL 1000

TRY	GLOBAL 1000 RANK	MARKET VALUE U. S. $ MIL.	PRICE PER SHARE U. S. $	% CHANGE FROM 1989 (U. S. $)	% CHANGE FROM 1989 (LOCAL)	PRICE/BOOK VALUE RATIO	P/E RATIO	YIELD %	SALES U. S. $ MIL.	PROFITS U. S. $ MIL.	ASSETS U. S. $ MIL.	RETURN ON EQUITY %	INDUSTRY CODE
Yokohama Rubber	918	2193	9	1	7	6.7	37	0.4	2357	59	2063a	18.0	37
Shimadzu	919	2192	8	–23	–18	4.1	48	0.6	1109	46	1278	8.6	35
Citizen Watch	926	2171	7	–16	–11	2.7	39	0.8	2193b	64b	1906	7.0	46
Tanabe Seiyaku	927	2168	9	–28	–23	3.0	43	0.6	1484b	50b	1673	7.0	45
Nisshin Flour Milling	934	2156	11	–14	–8	3.7	41	0.4	2363	51	1360	9.1	44
CSK	939	2138	36	44	53	3.3	62	0.1	530	32	1110	5.4	52
Showa Line	940	2136	8	12	19	61.2	LOSS	NA	611	–2	968	NEG	58
Terumo	945	2122	11	–10	–5	3.8	90	0.4	633	23	1430	4.2	22
Nisshinbo Industries	950	2108	9	–12	–7	2.1	27	0.6	1425d	69	1855	7.8	47
Niigata Engineering	954	2099	6	–2	4	7.4	247	0.3	1300	9	1659	3.0	38
Snow Brand Milk Products	959	2088	7	–16	–11	3.5	47	0.6	6033	44	2667	7.5	44
Canon Sales	962	2082	28	42	51	2.7	37	0.3	2527	55	1390	7.3	52
Hoya	976	2048	19	24	32	3.5	52	0.4	368d	20	879	6.9	45
Seino Transportation	981	2034	13	–22	–17	2.2	34	0.6	1635	57	1716	6.6	57
Anritsu	983	2030	17	17	24	5.2	53	0.3	611	38	696	9.9	34
Onward Kashiyama	993	2011	14	0	6	2.8	37	0.8	1352b	55b	1108*	7.7**	47
Orix	1000	1992	31	17	24	2.0	17	0.4	NA	54d	22057	11.4	62
THERLANDS													
NTRY COMPOSITE		**90337**	**49**	**27**	**7**	**5.4**	**11**	**5.2**	**183610**	**12487**	**506846**	**36.3**	
Royal Dutch Petroleum (1)	NR	41111	77	24	5	1.4	9	5.2	85412	6539	90193	15.7	11
Unilever NV (3)	NR	12979	81	32	12	5.1	13	3.1	34434	1687	20564	38.2	44
Nationale-Nederlanden	317	5679	39	48	25	1.1	11	4.1	7708	511	48792	10.0	63
Philips' Gloeilampenfabrieken	371	5011	18	7	–9	0.6	7	5.8	30045	720	28884	8.1	41
Polygram	630	3143	18	NA	NA	6.9	18	NA	2154	175	1545a	38.2	46
Elsevier	667	2954	46	58	34	17.4	18	2.0	1030	167	740a	97.9	51
Akzo	714	2769	62	–2	–17	1.2	6	6.8	9841	501	7503	21.7	22
Aegon	727	2722	66	53	30	1.4	11	4.6	3826	256	29635	13.0	63
NMB Postbank Groep	763	2626	27	44	22	1.0	8	5.3	NA	346	84725	13.3	61
Amro Bank	834	2403	38	20	2	0.7	6	7.7	NA	379	94390	11.1	61
Dordtsche Petroleum	872	2307	69	21	3	35.3	18	5.4	NA	126a	66a	191.7	11
Algemene Bank Nederland	874	2306	19	8	–8	0.7	6	8.0	NA	368	90976	10.8	61
DSM	929	2167	62	–1	–16	1.1	4	6.8	5658	544	5092	27.1	22
Heineken	932	2159	67	33	13	1.4	13	2.7	3502	171	3741	11.0	43
W ZEALAND													
NTRY COMPOSITE		**2679**	**3**	**–5**	**–3**	**1.1**	**6**	**6.2**	**6639**	**399**	**8126**	**17.8**	
Fletcher Challenge	744	2679	3	–5	–3	1.1	6	6.2	6639	399	8126	17.8	23
ORWAY													
NTRY COMPOSITE		**6507**	**32**	**40**	**26**	**3.1**	**16**	**1.9**	**10201**	**411**	**10061**	**19.5**	
Norsk Hydro	279	6507	32	40	26	3.1	16	1.9	10201	411	10061	19.5	11
NGAPORE/MALAYSIA													
NTRY COMPOSITE		**13167**	**5**	**20**	**14**	**2.7**	**21**	**1.5**	**4310**	**974**	**37292**	**16.9**	
Singapore Airlines	403	4608	7	4	–1	2.6	7	1.7	2749b	648b	3434a	36.4	56
Development Bank of Singapore	578	3434	7	63	54	2.6	25	0.8	NA	135	22180	10.3	61
OCBC Overseas Chinese Bank	723	2743	5	–8	–13	2.4	24	1.2	NA	108	10135	10.1	61
Sime Darby (Malaysia)	845	2381	2	23	16	3.1	28	2.4	1562	83	1542a	10.9	71
OUTH AFRICA													
NTRY COMPOSITE		**24626**	**19**	**56**	**46**	**2.1**	**11**	**4.4**	**2301**	**2851**	**17533**	**20.4**	
De Beers	160	9874	26	79	67	1.6	6	4.1	1588	1539	7644	24.6	26
Anglo American	226	7640	33	92	79	2.0	15	3.2	NA	567b	5529	13.7	81
Gencor	689	2873	3	38	29	1.2	6	4.9	NA	396	2831	20.4	81
Driefontein Consolidated	899	2244	11	24	16	3.3	12	6.3	714	225	940	28.0	81
Gold Fields of South Africa	999	1995	21	49	39	2.2	14	3.6	NA	124	589	15.6	81
PAIN													
NTRY COMPOSITE		**52308**	**32**	**8**	**10**	**2.0**	**14**	**5.8**	**27002**	**5203**	**322804**	**14.7**	
Telefónica Nacional de España	241	7238	8	2	–16	0.6	11	6.7	6777	657	25991	5.6	55
Repsol	242	7220	24	46	21	2.3	12	5.1	9722	614	6911a	19.6	11
Banco Bilbao Vizcaya	252	7034	30	1	–16	1.4	8	9.2	NA	915	73189	17.9	61
Endesa	304	5873	23	25	3	1.6	9	4.2	5233	681	13115a	18.9	12
Banco de Santander	374	4940	45	–9	–25	2.0	11	3.9	NA	444	43157	18.7	61
Banco Central	399	4630	47	21	0	2.2	12	4.1	NA	383	42366	18.2	61
Banco Español de Crédito	538	3675	37	–6	–22	1.8	15	4.6	NA	242a	34931a	11.8	61
Iberduero	668	2951	6	27	5	0.5	9	8.5	2411a	318a	12467a	5.9	12
Banco Popular España	833	2405	83	10	–9	1.9	7	5.7	NA	354	21883	27.4	61
Banco Hispano Americano	873	2306	27	–18	–32	6.5	37	6.9	NA	328	34045	17.8	61
Asland	984	2025	53	–22	–36	2.7	26	1.6	411a	68a	1034a	10.3	21
Hidroelectrica Española	992	2013	5	22	1	0.4	10	8.7	2449a	198a	13715a	3.9	12

Footnotes on page 115

THE GLOBAL 1000

COUNTRY RANK		GLOBAL 1000 RANK	MARKET VALUE U. S. $ MIL	PRICE PER SHARE U. S. $	% CHANGE FROM 1989 (U. S. $)	(LOCAL)	PRICE/ BOOK VALUE RATIO	P/E RATIO	YIELD %	SALES U. S. $ MIL.	PROFITS U. S. $ MIL.	ASSETS U. S. $ MIL.	RETURN ON EQUITY %	INDUSTRY CODE
SWEDEN														
COUNTRY COMPOSITE			**73664**	**56**	**29**	**18**	**3.7**	**23**	**2.3**	**97246**	**4313**	**192338**	**17.2**	
1	L. M. Ericsson	203	8269	202	168	145	3.9	23	1.1	6460	355	6680	16.7	34
2	Astra	219	7948	90	188	162	10.9	47	0.5	1219	172	1651	23.1	45
3	ASEA (5)	NR	7402	124	62	48	3.5	20	1.6	20560	589	24156	17.5	34
4	Skanska	361	5106	83	5	−4	4.9	37	0.8	4906	NA	4733a	13.4	32
5	Volvo	425	4385	75	−6	−14	1.1	8	3.4	14881	721	16049	14.0	42
6	Skandinaviska Enskilda Banken	581	3403	13	−5	−13	1.7	9	3.7	NA	381a	47294a	18.7	61
7	Svenska Cellulosa Aktiebolaget	614	3224	19	1	−8	2.7	16	2.5	4072	NA	4509a	17.1	23
8	Stora Kopparbergs Bergslags	618	3208	53	−14	−22	1.7	10	3.7	6917	NA	8023a	16.4	23
9	Saab-Scania	640	3100	46	22	11	1.4	17	2.8	7343	180	7608	8.2	38
10	SKF	672	2937	27	19	9	1.8	12	2.6	4099	237	4402	14.9	37
11	Electrolux	683	2900	40	−18	−26	1.1	7	5.1	13884	422	10350	16.0	41
12	Procordia	726	2724	25	0	−8	2.2	17	1.7	3364	NA	2908a	13.1	71
13	Sandvik	752	2651	49	−4	−12	2.5	7	2.5	3074	376	3691	35.9	25
14	Svenska Handelsbanken	761	2634	19	4	−5	1.9	9	3.5	NA	293a	38921a	20.9	61
15	Skandia	790	2536	33	−3	−12	5.8	32	2.0	822a*	78a	2762a*	18.0	63
16	Alfa-Laval	816	2446	41	85	69	3.7	15	2.1	2490	158	2720	23.9	38
17	AGA	856	2344	49	30	19	2.6	14	2.3	1805	161	2798	17.9	22
18	Investor	909	2218	74	20	9	3.3	30	1.9	NA	80	1104	11.1	71
19	Huvudstaden	942	2127	18	9	−1	14.4	108	0.6	116a	20a	552a	13.3	64
20	Pharmacia	953	2104	33	15	5	3.3	24	1.1	1233	90	1428	14.0	45
SWITZERLAND														
COUNTRY COMPOSITE			**110830**	**3827**	**42**	**17**	**2.2**	**22**	**2.1**	**118039**	**7122**	**421217**	**11.8**	
1	Nestlé	41	22809	6346	57	29	2.5	14	2.2	33751	1695	24898	18.2	44
2	Roche Holding	94	13993	5520	66	37	2.8	38	0.5	6901	598	12150	7.4	45
3	Union Bank of Switzerland	119	11724	2517	42	17	1.5	NA	3.8	NA	634*	123822*	NA	61
4	Ciba-Geigy	120	11712	2391	16	−4	1.1	12	1.9	14490	1095	17374	9.7	22
5	Sandoz	142	10634	8192	33	10	2.5	17	1.3	8787	671	8399	15.0	45
6	Swiss Bank Corp.	237	7367	228	35	11	1.2	NA	4.3	NA	527*	114260*	NA	61
7	CS Holding	245	7160	1726	26	4	1.2	12	4.5	NA	605	7179	10.3	61
8	BBC Brown Boveri (5)	NR	6759	4272	100	65	3.8	18	1.0	20560	589	24156	21.8	34
9	Zürich Vers.	337	5479	3340	28	6	1.7	27	1.3	12024	NA	31704a	6.2	63
10	Schweiz. Rück.	423	4409	2566	52	25	3.4	45	0.7	8667a	173a	24814a	7.4	63
11	Winterthur	509	3833	2876	22	1	2.7	27	1.6	8170	183	23548a	9.8	63
12	Jacobs Suchard	670	2948	4975	25	3	2.5	16	3.0	4690	193	3220a	16.2	44
13	Holderbank	996	2003	4799	47	21	1.1	14	1.7	NA	159a	5692a	8.0	21
UNITED STATES														
COUNTRY COMPOSITE			**2288516**	**72**	**12**	**12**	**2.9**	**19**	**3.5**	**2362681**	**151121**	**5287568**	**18.0**	
1	International Business Machines	2	68894	120	9	9	1.8	13	4.0	62700	5260	77740	13.5	33
2	General Electric	5	62543	69	26	26	3.0	15	2.7	54600	3940	128300	19.4	34
3	Exxon	6	60000	48	11	11	2.0	21	5.0	95200	2980	83220	9.7	11
4	American Telephone & Telegraph	13	46961	43	21	21	4.0	17	3.1	36100	2700	37690	24.1	55
5	Philip Morris	16	39114	42	21	21	4.1	12	3.3	44800	2950	38530	32.8	43
6	Merck	18	32720	83	19	19	9.3	21	2.2	6551	1495	6757	44.4	45
7	Bristol-Myers Squibb	21	32127	61	22	22	6.3	39	3.5	9189	747	5190	16.0	45
8	Wal-Mart Stores	22	31885	56	48	48	10.6	28	0.5	25811b	1076b	8199b	37.6	54
9	Coca-Cola	23	30416	45	56	56	9.5	26	1.8	8966	1193	8283	36.9	43
10	General Motors	26	29451	49	20	20	0.8	10	6.2	110000	4220	173300	8.7	42
11	Du Pont	29	27981	40	9	9	1.8	12	4.0	35500	2480	34720	15.0	22
12	Amoco	30	27340	53	19	19	2.0	17	3.9	26400	1610	29920a	12.2	11
13	BellSouth	31	27101	56	16	16	2.1	16	4.8	14000	1700	28470	13.3	55
14	Procter & Gamble	32	26780	83	61	61	4.3	20	2.2	21398	1206	16351	21.9	44
15	Atlantic Richfield	33	26046	118	28	28	3.0	11	4.2	16000	1950	22260	26.4	11
16	Mobil	34	25667	63	22	22	1.8	15	4.6	56200	1810	39080	12.1	11
17	Chevron	36	24937	70	27	27	1.8	61	4.0	32800	250	33880	2.9	11
18	Ford Motor	43	22481	46	−5	−5	1.1	6	6.5	82900	3840	160900	18.7	42
19	Eli Lilly	45	21817	78	41	41	5.8	23	2.1	4176	940	5848	25.0	45
20	Johnson & Johnson	47	21283	64	29	29	5.1	21	2.1	9757	1082	7919	24.3	45
21	GTE	48	21127	65	22	22	2.4	15	4.5	17424	1417	31100a	15.4	55
22	Bell Atlantic	49	20558	52	20	20	2.4	19	4.5	11400	1070	26220	12.5	55
23	PepsiCo	54	19481	74	36	36	5.0	21	1.6	15242	901	15127	23.4	43
24	Pacific Telesis	58	19091	46	14	14	2.4	16	4.4	9593	1242	21190	15.1	55
25	Boeing	59	19053	83	54	54	3.5	23	1.8	20276	675	12608a	15.1	31
26	Waste Management	63	18631	40	53	53	6.8	31	0.9	4459	562	6405	21.6	52
27	Minnesota Mining & Mfg.	65	18385	83	13	13	3.4	15	3.5	11990	1244	9776	23.5	71
28	Southwestern Bell	69	17547	58	13	13	2.1	16	4.7	8730	1093	21160	13.2	55
29	Nynex	72	17266	88	12	12	1.8	15	5.2	13200	1130	25360	12.1	55
30	Ameritech	73	17239	65	9	9	2.3	14	4.9	10200	1240	19840	16.2	55
31	Walt Disney	74	17201	129	39	39	7.3	23	0.5	4594	703	5109a	31.0	53
32	Dow Chemical	75	17064	62	1	1	2.1	8	4.2	17600	2487	22166	27.7	22
33	American International Group	77	16614	102	24	24	2.0	12	0.5	8940	1367	46140	16.3	63
34	Abbott Laboratories	78	16565	75	26	26	6.1	19	2.2	5380	860	4852	32.4	45
35	American Home Products	79	16525	53	14	14	8.4	15	4.1	6747	1102	5682	57.7	45
36	Texaco	82	15697	59	33	33	1.8	14	5.1	NA	1220	25640	13.6	11

Footnotes on page 115

THE GLOBAL 1000

RY	GLOBAL 1000 RANK	MARKET VALUE U. S. $ MIL.	PRICE PER SHARE U S $	% CHANGE FROM 1989 (U. S. $)	% CHANGE FROM 1989 (LOCAL)	PRICE/ BOOK VALUE RATIO	P/E RATIO	YIELD %	SALES U. S. $ MIL	PROFITS U. S. $ MIL.	ASSETS U. S $ MIL	RETURN ON EQUITY %	INDUSTRY CODE
US West	97	13900	37	9	9	1.7	6	5.4	9691	1111	25430	28.3	55
Schlumberger	98	13873	58	48	48	4.8	31	2.1	4086	407	5482	15.7	36
Eastman Kodak	103	13064	40	–10	–10	2.0	25	5.0	18398	529	23652	8.0	46
McDonald's	110	12534	35	16	16	3.5	17	1.0	6142	727	9175	20.4	53
Sears, Roebuck	113	12416	36	–23	–23	0.9	10	5.5	53800	1450	86970	9.3	54
American Express	114	12224	29	–10	–10	2.3	8	3.1	NA	1157	130900	28.0	62
Anheuser-Busch	115	12168	43	1	1	4.0	16	2.0	9481	767	9026	25.2	43
Hewlett-Packard	128	11348	48	–12	–12	2.1	14	0.9	11899	829	10075	14.5	35
Digital Equipment	130	11318	93	1	1	1.4	18	NA	12742	1073	10668	7.8	33
Pfizer	136	10890	66	8	8	2.4	16	3.6	5672	681	8325	15.0	45
Motorola	138	10824	83	47	47	2.8	22	0.9	9620	498	7686	13.1	35
Schering-Plough	140	10668	47	42	42	5.5	22	1.9	3158	471	3614	25.5	45
MCI Communications	143	10625	43	9	9	5.3	18	0.5	6471	603	6338	29.2	55
Westinghouse Electric	146	10558	36	15	15	2.4	11	3.8	12844	922	20310	21.3	34
Capital Cities/ABC	147	10530	585	33	33	3.5	24	0.0	4773a	387a	6089a	14.8	51
Pacific Gas & Electric	161	9813	23	17	17	1.3	13	6.6	8588	901	21350	10.4	12
United Telecommunications	171	9527	46	32	32	4.6	25	2.2	7549	363	9821	18.5	55
Federal National Mortgage Assn.	173	9484	40	35	35	4.1	11	1.4	NA	807	112200a	36.8	62
Emerson Electric	179	9276	42	17	17	3.0	16	3.0	7071	588	5408	19.3	34
Limited	185	8987	50	58	58	9.5	25	1.0	4648b	347b	2146	38.1	54
Intel	187	8903	48	48	48	3.5	21	NA	3127	391	3994	16.5	35
Dun & Bradstreet	190	8749	47	–16	–16	4.0	16	4.5	4322	586	5184	25.2	52
Toys 'R' Us	191	8716	46	45	45	5.1	28	NA	4788b	321b	3075b	18.4	54
H. J. Heinz	194	8606	34	26	26	4.9	18	2.5	5801	440	4001	26.4	44
USX	195	8594	34	–4	–4	1.6	11	4.2	18717	965	17500	14.8	25
Loews	201	8425	112	4	4	2.1	9	0.9	11437	907	25830a	22.7	71
SCEcorp	202	8329	38	11	11	1.6	10	6.7	6904	778	15440	15.7	12
Warner-Lambert	207	8209	61	36	36	7.3	20	2.5	4196	413	2860	38.2	45
Tenneco	208	8202	65	21	21	2.5	14	4.7	14083	584	17380	17.9	11
Berkshire Hathaway (6)	209	8194	7150	11	11	1.7	20	0.0	2483	447	9460	8.4	71
J. C. Penney	212	8076	66	13	13	2.1	10	4.0	16405b	802b	12254	20.5	54
Microsoft	213	8076	73	NA	NA	14.2	35	NA	804	171	721	40.6	52
General Re	215	8039	89	40	40	2.6	14	1.7	1898	599	10389	19.2	63
Union Pacific	216	8033	71	–3	–3	1.8	13	3.3	6492	595	12228a	14.3	57
Occidental Petroleum	217	8001	28	–2	–2	1.2	27	9.1	20068	256	20740a	4.5	11
Kellogg	218	7952	65	–6	–6	4.9	20	2.9	4652	422	3390	24.8	44
Southern Co.	222	7900	25	–2	–2	1.2	9	8.6	7492	846	20090	12.3	12
Archer Daniels Midland	232	7450	27	39	39	2.5	16	0.4	7929	425	4729	15.8	44
Citicorp	235	7388	23	–28	–28	0.9	95	7.8	NA	500h	230600	0.9	61
May Department Stores	243	7197	58	37	37	3.1	15	2.7	9526b	515b	7802b	20.8	54
Upjohn	246	7104	39	22	22	4.1	22	2.6	2916	311	3247	18 2	45
United Technologies	247	7099	59	14	14	1.5	11	3.1	19757	702	14598	13.9	31
ITT	250	7043	57	–4	–4	1.0	9	2.8	20054	922	45510	11.6	71
K mart	251	7039	35	–7	–7	1.4	21	4.9	29533bi	323bi	13145b	6.6	54
Norfolk Southern	253	7005	41	15	15	1.4	12	3.5	4536	606	10244	11.7	57
Campbell Soup	254	7004	54	22	22	3.7	150	1.9	5672	13	3610a	2.5	44
Texas Utilities	255	6955	36	21	21	1.0	8	8.2	4321	779	17220	13.5	12
J. P. Morgan	256	6942	38	–7	–7	1.7	LOSS	4.8	NA	-1275h	88960	NEG	61
Unocal	260	6886	30	30	30	3.2	21	2.4	11357	336	9508a	15.0	11
Caterpillar	263	6795	67	5	5	1.5	15	1.8	10882	497	10926	10.2	38
Sara Lee	264	6763	30	9	9	3.5	16	2.8	11718	411	6523	22.1	44
Marion Merrell Dow	265	6762	24	17	17	6.4	16	2.5	2211	397	784	39.1	45
Rockwell International	266	6758	27	22	22	1.7	13	2.8	12518	631	8939	13.1	37
Monsanto	268	6694	103	–5	–5	1.7	11	3.8	8681	679	8599	16.5	22
Commonwealth Edison	270	6673	32	–13	-13	1.0	12	9.5	5751	694	17950	8.0	12
General Mills	271	6644	81	26	26	8.9	19	2.7	5621	315	2888	47.8	44
Gannett	272	6620	41	–4	–4	3.3	17	2.9	3518	398	3783	19.9	51
Phillips Petroleum	276	6555	27	14	14	3.1	20	3.7	12384	499	11256	15.6	11
Syntex	280	6504	58	21	21	11.1	20	2.8	1349	303	1440	54.0	45
BankAmerica	282	6441	31	7	7	1.3	8	3.3	NA	820	98760	15 9	61
American Brands	284	6374	67	–2	–2	2.2	10	4.1	11921	631	11394	21.9	43
Browning-Ferris Industries	286	6238	42	23	23	7.1	23	1.5	2551	263	2258a	31.0	52
Burlington Resources	287	6186	42	NA	NA	1.9	38	1.7	1715	149	6098	5.1	12
American General	288	6129	48	36	36	1.4	14	6.6	4227	413	30420a	10.3	63
Time Warner	295	6077	106	–16	–16	0.9	LOSS	0.9	10779	–432	24791	NEG	51
Paramount Communications	300	5925	49	–9	–9	1.6	39	1.4	3392	144	7066	4.1	71
Aetna Life & Casualty	303	5879	53	–3	–3	0.8	9	5.3	13311	639	87100	9.3	63
CPC International	305	5869	78	33	33	5.8	18	2.6	5103	327	3705	32.5	44
Baxter International	307	5843	24	9	9	1.9	LOSS	2.7	7399	446	8550a	NEG	45
Marsh & McLennan	309	5812	79	29	29	6.6	19	3.3	NA	295	2035	34.5	63
Aluminum Co. of America	310	5778	66	2	2	1.1	7	4.5	10910	945	11541	15.6	24
International Paper	315	5709	53	7	7	1.1	7	3.2	11378	864	11582	15.6	23
Kimberly-Clark	316	5708	71	7	7	2.7	13	3.8	5734	424	4923	21.0	45
Public Service Enterprise Group	318	5647	27	3	3	1.3	10	7.8	4805	542	12919	12.9	12
Weyerhaeuser	319	5641	27	–8	–8	1.4	10	4.4	10106	601	15976	13.6	23
American Electric Power	322	5613	29	5	5	1.3	9	8.3	5140	629	14750	14.0	12
AMP	323	5612	52	24	24	3.4	20	2.6	2797	281	2530	17.4	35
Deere	325	5602	74	23	23	2.0	14	2.7	6234	380	9145	14.8	38
Duke Power	327	5583	55	15	15	1.5	11	5.7	3639	572	9542	14.2	12
Ralston-Purina	333	5520	90	3	3	6.6	39	2.1	6658	351	4382	17.0	44

Footnotes on page 115

THE GLOBAL 1000

COUNTRY RANK		GLOBAL 1000 RANK	MARKET VALUE U.S. $ MIL.	PRICE PER SHARE U.S. $	% CHANGE FROM 1989 (U.S. $)	% CHANGE FROM 1989 (LOCAL)	PRICE/BOOK VALUE RATIO	P/E RATIO	YIELD %	SALES U.S. $ MIL.	PROFITS U.S. $ MIL.	ASSETS U.S. $ MIL.	RETURN ON EQUITY %	INDUSTRY CODE
117	Gillette	335	5507	57	40	40	LOSS	22	1.9	3819	285	2868a	NEG	45
118	PPG Industries	341	5413	50	10	10	2.4	12	3.4	5734	465	5646	20.0	22
119	Dayton Hudson	345	5360	76	41	41	3.1	14	1.7	13644b	410b	6684b	22.6	54
120	Consolidated Edison of New York	348	5329	23	−5	−5	1.2	10	7.8	5551	606	10349	12.7	12
121	American Cyanamid	350	5322	57	4	4	2.5	18	2.4	4825	292	4593a	13.7	22
122	Allied-Signal	352	5293	37	4	4	1.6	10	4.9	11942	528	10132	15.3	71
123	PacifiCorp	354	5259	22	11	11	1.8	12	6.7	3717	467	11396	15.3	71
124	Halliburton	355	5254	49	63	63	2.5	33	2.0	5661	134	4263	7.4	36
125	Tele-Communications	356	5252	15	−15	−15	4.3	LOSS	NA	3026	−257	8574a	NEG	51
126	Borden	360	5160	35	5	5	3.1	11	3.0	7593	404	4825	28.5	44
127	Melville	362	5095	50	9	9	3.1	15	2.9	7554	398	3032	21.4	54
128	Apple Computer	363	5085	41	−14	−14	3.5	10	1.1	5284	454	2744	33.9	33
129	Student Loan Marketing Assn.	368	5052	51	26	26	6.1	20	1.0	NA	258	35490	30.7	62
130	Chemical Waste Management	375	4912	24	40	40	6.2	32	0.7	892	144	1105	19.2	52
131	NCR	377	4853	69	21	21	2.4	13	2.0	5956	412	4500	19.0	33
132	Orvx Energy	380	4825	46	NA	NA	NA	NA	2.6	NA	NA	NA	NA	11
133	Cooper Industries	384	4797	44	38	38	1.8	17	2.4	5129	268	6745	10.4	36
134	CBS	388	4756	202	1	1	2.1	16	2.2	2962	297	4407a	13.1	51
135	CNA Financial	391	4708	76	5	5	1.2	8	NA	7454	614	28680	15.0	63
136	Compaq Computer	392	4701	119	26	26	4.0	15	NA	2876	333	2090	26.6	33
137	Corning	393	4688	50	29	29	2.7	18	1.8	2439	259	3361	15.5	41
138	Home Depot	395	4678	61	NA	NA	9.1	43	0.3	2759b	112b	1118b	21.0	54
139	Security Pacific	406	4604	40	−10	−10	1.1	6	5.7	NA	741	83940	17.6	61
140	Newmont Gold	408	4601	44	46	46	9.6	32	0.1	559	118	663	30.3	81
141	Banc One	412	4518	31	28	28	1.8	12	3.3	NA	363	26550	15.2	61
142	MCA	419	4463	61	10	10	2.4	18	1.1	3382	245	4211	13.4	53
143	Humana	420	4430	45	48	48	3.3	16	2.3	4088	256	3696	21.1	52
144	Albertson's	422	4411	66	44	44	4.7	22	1.5	7423b	197b	1863b	21.1	54
145	Food Lion	424	4389	14	17	17	10.2	32	1.0	4717	140	1089	32.1	54
146	Xerox	428	4364	47	−26	−26	0.9	8	6.3	17635	704	30090	11.3	33
147	Contel	430	4355	28	−3	−3	2.6	16	4.0	3114	277	5846	16.2	55
148	Federal Home Loan Mortgage (6)	431	4349	72	NA	NA	2.3	10	2.2	3757	437	35462	22.9	62
149	Automatic Data Processing	439	4285	58	48	48	4.4	21	1.2	1678	188	1679	21.5	52
150	Sun	440	4281	40	−4	−4	1.3	16	4.5	11377	275	8699	7.9	11
151	Times Mirror	441	4273	33	−16	−16	2.5	16	3.2	3517	298	3947	16.2	51
152	Woolworth	442	4272	67	27	27	2.3	13	3.1	8820b	329b	3535	17.8	54
153	Colgate-Palmolive	443	4271	65	28	28	6.1	16	2.8	5039	280	3536	39.2	44
154	Dominion Resources	444	4268	44	−1	−1	1.3	10	7.6	3700	411	11034	13.1	12
155	FPL Group	448	4217	32	1	1	1.2	11	7.5	6180	410	12325	11.0	12
156	Raytheon	459	4134	63	−12	−12	1.7	8	3.8	8796	529	5338	22.1	31
157	Pitney Bowes	469	4092	52	16	16	2.9	22	2.3	2876	180	5611	12.9	52
158	Cigna	470	4087	52	−5	−5	0.8	10	5.8	15654	458	57780	8.0	63
159	Entergy	472	4080	20	10	10	1.0	11	5.0	3724	390	14720	9.0	12
160	Arco Chemical	474	4063	42	16	16	2.6	10	5.9	2663	405	2655	26.0	22
161	Wells Fargo	475	4060	80	4	4	1.7	7	4.5	NA	601	48740	22.9	61
162	Chubb	477	4053	48	38	38	1.6	10	2.8	3190	421	11179a	16.1	63
163	Honeywell	479	4030	101	34	34	2.1	8	2.7	6059	550	5258	27.4	34
164	American TV & Communications	480	4029	37	−23	−23	15.4	40	NA	973	95	1508a	38.6	51
165	Quaker Oats	485	3978	51	−15	−15	4.5	18	2.8	5724	203	3222	24.9	44
166	AMR	486	3976	64	4	4	1.1	11	NA	10480	455	10877	9.7	56
167	Georgia-Pacific	495	3932	45	−4	−4	1.4	7	3.5	10171	661	7056	22.2	23
168	NCNB	496	3922	39	−17	−17	1.3	8	3.6	NA	447	66190	17.6	61
169	Detroit Edison	498	3908	27	34	34	1.8	9	6.7	3203	426	10060a	19.0	12
170	Masco	500	3891	25	−11	−11	2.1	18	2.1	3151	221	3641	11.6	37
171	Fluor	501	3880	49	74	74	5.4	34	0.5	6228	108	2154	15.8	38
172	Consolidated Natural Gas	503	3858	47	8	8	2.3	23	3.9	2802	182	4601	10.1	12
173	Houston Industries	517	3778	32	9	9	1.1	13	9.3	NA	414	10218a	8.8	12
174	McCaw Cellular Communications	520	3771	29	NA	NA	LOSS	21	NA	504	−289	2076a	NEG	55
175	ConAgra	522	3759	31	41	41	3.9	17	1.9	11340	198	4278	22.6	44
176	Central & South West	526	3740	40	17	17	1.4	14	6.9	2549	337	8347	10.1	12
177	Amerada Hess	528	3737	46	20	20	1.5	13	1.3	5679	476	6867	11.5	11
178	LIN Broadcasting	531	3732	73	−12	−12	5.7	LOSS	NA	251	108	675	NEG	51
179	Delta Air Lines	535	3702	77	11	11	1.4	10	1.6	8089	461	6485	15.1	56
180	Electronic Data Systems	546	3621	36	36	36	NA	19	1.6	5467	435	3416a	NA	52
181	Chrysler	548	3584	15	−35	−35	0.5	64	7.8	34922	359	48567a	0.7	42
182	Primerica	549	3584	33	46	46	1.6	11	1.0	NA	289	14440a	15.1	62
183	Ethyl	551	3565	30	25	25	4.0	16	2.0	2432	219	5632	24.4	22
184	Dresser Industries	554	3546	52	35	35	2.2	22	2.1	3956	163	3056	10.0	36
185	Carolina Power & Light	555	3536	44	15	15	1.5	10	6.6	2481	376	7504a	14.9	12
186	Bankers Trust New York	556	3528	43	−8	−8	1.5	LOSS	5.4	NA	−980	55660	NEG	61
187	Baker Hughes	558	3523	29	72	72	3.5	34	1.6	2328	83	2066	10.5	36
188	Coastal	560	3521	35	27	27	2.4	18	1.2	8271	178	7870a	13.5	11
189	Philadelphia Electric	563	3498	17	−21	−21	0.9	5	13.3	3406	590	11860	17.4	12
190	Santa Fe Southern Pacific	565	3493	22	−3	−3	4.1	LOSS	0.5	2978	−196	6609	NEG	57
191	Reynolds Metals	566	3486	59	6	6	1.3	7	3.1	6143	533	5556	18.2	24
192	R. R. Donnelley & Sons	570	3470	44	3	3	2.4	15	2.2	3122	222	2507	15.9	52
193	Texas Instruments	580	3423	42	−5	−5	1.7	19	1.7	6522	292	4804	9.1	35
194	UAL	583	3398	156	27	27	2.2	15	NA	9794	324	7207	14.3	56
195	Genuine Parts	586	3373	41	−2	−2	3.5	16	3.3	3161	199	1292	21.9	37
196	CSX	591	3295	34	2	2	1.0	9	4.2	7745	427	12300	11.0	57

Footnotes on page 115

THE GLOBAL 1000

RY	GLOBAL 1000 RANK	MARKET VALUE U. S. $ MIL.	PRICE PER SHARE U. S. $	% CHANGE FROM 1989 (U. S. $)	% CHANGE FROM 1989 (LOCAL)	PRICE/ BOOK VALUE RATIO	P/E RATIO	YIELD %	SALES U. S. $ MIL.	PROFITS U. S. $ MIL.	ASSETS U. S. $ MIL.	RETURN ON EQUITY %	INDUSTRY CODE
Dillard Department Stores (6)	603	3273	92	54	54	2.9	20	0.2	3049	148	2496	14.3	54
PNC Financial	610	3242	36	–24	–24	1.2	10	6.0	NA	377	40810	11.4	61
Scott Paper	613	3227	44	–7	–7	1.6	12	1.8	5066	302	5746	13.6	23
Tribune	616	3218	43	–7	–7	2.7	14	2.2	2455	242	2941a	19.6	51
Pennsylvania Power & Light	620	3190	42	10	10	1.5	10	7.0	2356	353	7525	14.6	12
Tandy	622	3179	37	–15	–15	1.8	11	1.6	4181	324	2574	16.9	54
Washington Post	623	3166	258	3	3	3.4	17	1.6	1444	198	1532	20.5	51
Hershey Foods	626	3157	35	22	22	2.8	18	2.2	2421	171	1814	16.0	44
Sysco	628	3148	34	46	46	4.9	25	0.6	6851	108	1869	19.4	44
UST	632	3137	29	13	13	6.5	17	3.8	682	190	636	38.7	43
Ohio Edison	634	3128	21	–5	–5	1.2	9	9.6	2155	361	7723	12.9	12
Air Products & Chemicals	635	3126	57	34	34	2.2	15	2.3	2642	217	3366	14.4	22
Travelers	636	3122	30	–25	–25	0.6	8	7.9	12523	424	56560	8.5	63
Carnival Cruise Lines (6)	637	3115	23	28	28	3.5	18	2.1	1148	194	2220	19.3	53
Readers Digest Association (6)	638	3106	26	NA	NA	7.4	NA	1.8	1832	151	1174	39.2	51
Newmont Mining	642	3093	46	32	32	LOSS	18	1.3	582	130	1302	NEG	24
Consolidated Rail	646	3066	45	19	19	0.8	26	3.1	3411	148	7224a	2.9	57
Salomon	647	3064	26	–1	–1	1.1	6	2.5	8999	470	118300	18.6	62
Centel	648	3054	34	7	7	3.1	119	2.5	1188	11	3417	2.6	55
TRW	652	3038	50	10	10	1.8	12	3.4	7340	263	5259	14.4	37
Chase Manhattan	653	3036	27	–20	–20	0.8	LOSS	9.4	NA	–665h	107400	NEG	61
SunTrust Banks	655	3033	24	–2	–2	1.6	9	3.6	NA	337	29180a	18.2	61
Ingersoll-Rand	659	3020	59	41	41	2.2	15	2.1	3447	211	2595	14.5	38
Pacific Enterprise	662	3001	43	–2	–2	1.6	15	8.1	6762	211	7326	10.7	12
Transamerica	664	2975	39	NA	NA	1.0	11	4.9	NA	292	29840	9.4	62
Illinois Tool Works	671	2945	55	49	49	3.4	18	1.1	2173	164	1688	19.2	38
Nike	673	2935	79	NA	NA	5.2	14	1.0	1711	167	825	37.3	47
Champion International	674	2928	31	–10	–10	0.8	8	3.6	5163	432	7531	10.8	23
First Wachovia	677	2907	42	9	9	1.9	11	4.0	NA	269	21820a	17.3	61
Rubbermaid	681	2901	39	29	29	4.8	24	1.3	1344	116	915	20.1	44
Walgreen	686	2876	47	12	12	3.5	18	1.7	5380	154	1681	19.7	54
St. Paul	690	2872	58	14	14	1.3	7	4.1	3789	398	11030	18.0	63
Tandem Computers	691	2870	28	52	52	2.9	23	NA	1633	118	1619	12.6	33
Whitman	692	2863	28	–18	–18	7.3	16	3.6	3986	228	3718	44.7	44
Viacom (6)	695	2855	27	8	8	6.5	LOSS	0.0	1436	131	2753	NEG	51
Enron	697	2844	57	27	27	1.9	13	4.4	9836	226	9105	14.3	12
Union Carbide	701	2832	20	–25	–25	1.2	6	5.0	8744	573	8546	19.5	22
Burlington Northern	704	2818	37	53	53	2.6	11	3.2	4606	243	6148	24.2	57
National Medical Enterprises	705	2806	36	24	24	2.4	13	2.0	3676	193	3877	19.5	52
Dow Jones	711	2786	28	–23	–23	2.4	9	2.8	1688	317	2112a	26.4	51
Nordstrom	718	2755	34	–2	–2	3.8	26	0.9	2671b	115b	1707b	14.3	54
Deluxe	720	2748	32	12	12	4.4	17	3.2	1316	153	847	25.0	52
Computer Associates International	724	2733	15	–28	–28	3.3	15	NA	1296b	158b	1167	22.6	52
Pennzoil	740	2688	74	–8	–8	2.1	13	4.1	1985	235	4882	15.8	11
Knight-Ridder	748	2662	52	10	10	2.9	15	2.6	2268	180	2135	19.9	51
Winn-Dixie Stores	750	2659	67	35	35	3.4	17	3.0	9151	135	1575	19.4	54
McGraw-Hill	751	2657	55	–20	–20	3.0	81	3.9	1789	40	2208	3.8	51
Union Electric	758	2641	26	2	2	1.4	9	8.0	2010	286	5760	15.2	12
Dover	759	2641	41	29	29	3.6	17	1.8	2121	144	1366a	20.8	21
Hilton Hotels	760	2635	55	–35	–35	3.2	22	1.8	998	110	1892a	14.8	53
Liz Claiborne	766	2611	30	29	29	5.7	15	0.8	1411	165	629a	37.7	47
Centerior Energy	768	2605	19	9	9	0.9	10	8.6	2302	267	11973a	9.0	12
Union Camp	773	2585	38	–1	–1	1.5	9	4.2	2761	299	3417	16.4	23
Morgan Stanley Group	774	2577	71	NA	NA	1.5	6	2.1	NA	443	53280	23.5	62
Becton, Dickinson	776	2574	67	23	23	2.4	16	1.6	1811	158	2270	15.2	45
Manufacturers Hanover	780	2561	37	1	1	0.9	LOSS	9.0	NA	–588h	60480	NEG	61
International Flavors & Fragrances	782	2560	67	23	23	3.3	18	3.2	870	139	970	18.6	22
Oracle Systems	783	2556	20	NA	NA	10.9	27	NA	584	82	460	39.6	52
Sun Microsystems	786	2550	30	NA	NA	3.9	66	0.0	1765	61	1269	5.8	33
Bank of New York	792	2529	37	–25	–25	1.1	186	5.7	NA	50	47390	0.6	61
Marriott	793	2519	25	–32	–32	4.0	15	1.1	7536	181	6732	26.5	53
Turner Broadcasting (6)	795	2515	52	38	38	NEG	LOSS	0.0	1065	28	2115	NEG	51
NBD Bancorp	802	2501	35	13	13	1.6	10	3.7	NA	259	25770	17.2	61
Torchmark	804	2494	48	21	21	2.8	12	2.9	NA	211	4921	22.9	63
Aon	805	2488	39	15	15	2.0	11	3.9	NA	232	8265a	18.3	63
Fleet/Northstar Financial	814	2458	23	–22	–22	1.3	7	6.1	NA	371	29050a	18.5	61
General Public Utilities	815	2457	44	19	19	1.2	9	5.9	2911	282	6688	13.5	12
Kerr-McGee	817	2444	49	8	8	1.7	20	3.0	3087	126	3123a	8.2	11
Merrill Lynch	822	2426	24	–22	–22	0.8	15	4.2	NA	178	63940	5.1	62
W. R. Grace	823	2425	28	–14	–14	1.4	9	4.9	6115	257	5619	14.9	22
Federal Express	826	2416	46	–5	–5	1.6	22	NA	5167	166	5293	7.5	52
San Diego Gas & Electric	829	2412	43	9	9	1.9	12	6.3	2082	187	3546	15.6	12
CMS Energy	831	2407	29	1	1	1.4	8	1.4	2961	312	8305	18.7	12
Great Western Financial	835	2402	19	–4	–4	1.2	24	4.5	NA	100	37180	5.0	61
Gap	837	2399	67	NA	NA	8.8	24	1.1	1587b	98b	481b	36.4	54
American Stores	839	2395	70	10	10	2.3	20	1.6	22004b	118b	7010	11.3	54
USF&G	843	2382	29	–12	–12	1.3	20	10.2	3671	119	13600	6.5	63
Safeco	848	2370	38	30	30	1.3	8	3.6	1850	300	9279	15.7	63
Clorox	852	2354	43	13	13	3.0	15	3.4	1356	146	1213	19.5	44
CoreStates Financial	858	2341	43	–9	–9	1.4	9	4.5	NA	199	16850	15.1	61

Footnotes on page 115

THE GLOBAL 1000

COUNTRY RANK		GLOBAL 1000 RANK	MARKET VALUE U. S. $ Mil	PRICE PER SHARE U. S. $	% CHANGE FROM 1989 (U. S. $)	% CHANGE FROM 1989 (LOCAL)	PRICE/ BOOK VALUE RATIO	P/E RATIO	YIELD %	SALES U. S. $ MIL.	PROFITS U. S. $ MIL.	ASSETS U. S. $ MIL.	RETURN ON EQUITY %	INDUSTRY CODE
277	Geico	862	2337	154	19	19	2.6	11	1.3	1621	213	3434	23.4	63
278	Baltimore Gas & Electric	868	2320	29	–5	–5	1.2	11	7.3	2004	276	5986	11.0	12
279	Unisys	878	2296	15	–46	–46	0.9	LOSS	6.9	10097	–639	10750	NEG	33
280	Lincoln National	881	2284	55	13	13	1.0	10	4.6	5961	269	25070	10.4	63
281	Genentech	885	2270	27	46	46	5.7	48	NA	400	44	669a	11.8	45
282	Eaton	888	2265	61	0	0	2.0	12	3.3	3671	210	3052	17.0	37
283	Rohm & Haas	889	2265	34	–3	–3	1.7	13	3.5	2661	176	2455	13.5	22
284	Panhandle Eastern	894	2253	26	11	11	1.6	21	7.8	2781l	70	6266	7.7	12
285	Wm. Wrigley Jr. (6)	898	2245	57	20	20	6.2	20	2.6	993	106	499	30.1	44
286	Northern States Power	900	2244	36	1	1	1.5	11	6.2	1990	222	4593	13.4	12
287	National City	901	2240	37	0	0	1.5	8	5.1	NA	263	22910	17.6	61
288	Tyco Laboratories	902	2237	53	30	30	4.6	20	0.6	1971	91	1399	22.7	71
289	Lockheed	903	2235	35	–27	–27	1.1	393	5.1	9891	6	6792	0.3	31
290	Tyson Foods (6)	904	2234	34	87	87	4.5	21	0.1	2538	101	2586	21.8	44
291	Ashland Oil	905	2231	38	–9	–9	2.0	80	2.6	8464	86	4456	2.4	11
292	Barnett Banks	906	2231	36	–7	–7	1.3	11	3.7	NA	257	29000	12.4	61
293	First Interstate Bancorp	910	2217	39	–29	–29	0.9	LOSS	7.6	NA	–152	58190	NEG	61
294	Polaroid	912	2208	42	6	6	14.8	20	1.4	1905	145	1777	73.4	46
295	Chemical Banking	916	2195	27	–24	–24	0.6	LOSS	9.9	NA	–482h	67350a	NEG	61
296	Rorer Group	920	2191	69	73	73	4.9	32	1.2	1182	87	1388a	15.1	45
297	Textron	924	2179	25	–11	–11	0.9	8	4.1	7440	269	12554	10.6	71
298	Martin Marietta	930	2166	43	–6	–6	1.6	7	3.2	5796	307	3505	22.6	31
299	Alltel (6)	933	2159	33	8	8	2.4	14	3.9	1226	154	2379	17.2	55
300	Great Atlantic & Pacific Tea	935	2153	56	–2	–2	2.2	15	1.2	1148b	147	2640	15.1	54
301	Reebok International	936	2149	19	NA	NA	2.5	12	1.6	1822	175	1166	21.0	47
302	First Union (6)	937	2143	20	–19	–19	0.9	8	5.4	3313	256	32131	10.6	61
303	Southern New England Telecomms.	938	2142	35	–2	–2	1.8	12	5.0	1671	189	3178	15.3	55
304	Amax	943	2127	24	–4	–4	1.0	7	3.3	3892	360	4190	14.5	24
305	Capital Holding	944	2124	47	25	25	1.8	8	2.3	1027	276	12960a	22.0	63
306	Northeast Utilities	946	2119	20	–3	–3	1.2	10	9.0	2206	203	6765a	11.4	12
307	First Chicago	951	2108	33	–19	–19	0.9	8	6.2	NA	359	47900	11.9	61
308	Long Island Lighting	955	2099	19	14	14	1.0	LOSS	5.3	2348	–96	8326a	NEG	12
309	United Artists Entertainment	956	2098	16	NA	NA	2.6	LOSS	NA	1199	–104	4013a	NEG	51
310	Norwest	957	2092	22	15	15	1.6	9	3.7	NA	237	24330	18.9	61
311	H. F. Ahmanson	958	2091	21	4	4	1.0	10	4.2	NA	194	44650	10.7	61
312	Brown-Forman (6)	960	2085	75	21	21	3.7	26	2.8	1006	145	1003	14.1	43
313	Columbia Gas System	961	2084	46	8	8	1.3	18	4.8	3204	146	5878	7.2	12
314	Potomac Electric Power	963	2081	21	3	3	1.5	11	7.2	1395	215	4643	13.4	12
315	Mead	966	2073	33	–20	–20	1.2	10	3.1	4612	216	3750	11.8	23
316	Goodyear Tire & Rubber	969	2067	36	–33	–33	1.0	18	5.0	10869	189	8460	5.4	37
317	Super Valu Stores	970	2065	28	2	2	2.4	14	2.2	11136b	148b	2429b	17.0	54
318	Whirlpool	971	2064	30	–2	–2	1.5	12	3.7	6289	187	5354	12.3	41
319	Allegheny Power System	974	2052	39	3	3	1.3	10	8.1	2258	195	4433	12.4	12
320	James River Corp. of Virginia	975	2050	25	–15	–15	1.0	9	2.4	5872	255	5557	10.9	23
321	Morton International (6)	977	2048	43	5	5	2.1	17	2.1	1407	97	1364	12.7	22
322	Phelps Dodge	978	2043	59	0	0	1.5	5	5.1	2700	504	2505	32.1	24
323	Great Lakes Chemical (6)	979	2037	58	65	65	3.3	16	0.8	762	123	1097	20.7	22
324	Medtronic	987	2023	75	48	48	4.3	20	0.9	742	97	760	21.7	45
325	H&R Block (6)	988	2019	38	34	34	5.2	19	3.3	877	100	826	27.6	62
326	Golden West Financial	990	2014	32	40	40	2.2	12	0.5	NA	158	19520	18.9	61
327	W. W. Grainger	991	2013	74	18	18	2.8	17	1.6	1727	120	1065	16.5	34
328	Castle & Cooke (6)	997	2000	34	–1	–1	2.4	20	0.0	2718	95	2270	11.8	44
329	Temple Inland	998	2000	36	22	22	1.8	9	2.2	1894	207	1982a	19.6	23
WEST GERMANY														
COUNTRY COMPOSITE			**270315**	**452**	**62**	**37**	**4.2**	**34**	**3.0**	**418941**	**13759**	**1025769**	**14.1**	
1	Allianz	35	24979	1514	85	57	6.4	68	0.7	7392*	NA	19592a*	9.4	63
2	Daimler-Benz	42	22580	485	47	25	3.1	14	2.3	45176	3802e	30710a	22.4	42
3	Siemens	46	21292	428	56	32	2.1	16	2.7	36149	871	38084	13.1	34
4	Deutsche Bank	60	19032	461	75	49	2.1	NA	2.8	NA	778	203075	NA	61
5	RWE	116	11997	284	94	64	2.9	22	2.9	23046	372	25364	13.3	12
6	Volkswagen	124	11399	356	83	55	1.6	10	2.9	38646	582	33631	15.7	42
7	Bayer	132	11185	175	12	–5	1.3	9	6.9	25606	1232	21366	15.4	22
8	VEBA	133	11128	253	74	47	1.7	15	4.0	29100	747	24494	11.3	12
9	BASF	158	9960	175	11	–6	1.3	8	6.9	28159	1192	20769	16.6	22
10	Hoechst	167	9630	170	7	–9	1.6	8	7.1	27143	1141	19716	21.2	22
11	Münchener Rück.	193	8610	1354	42	20	24.7	78	0.7	7368	36	18817	31.9	63
12	Dresdner Bank	196	8569	245	58	34	1.6	NA	4.5	NA	373	146008	NA	61
13	Mannesmann	293	6080	210	80	53	2.5	20	3.5	13205	NA	8788a	12.1	38
14	BMW	332	5546	352	34	13	2.7	15	3.3	12389	NA	6837a	18.1	42
15	Thyssen	351	5312	169	32	12	2.0	8	5.5	20254	452	12351	24.2	25
16	Henkel	365	5077	361	46	24	2.7	20	2.3	6875	214	5050	13.4	44
17	Mercedes Automobil-Holding	397	4658	396	49	27	3.0	NA	2.8	NA	76a	1318a	NA	42
18	MAN	460	4131	285	98	67	1.6	25	2.6	10085	141	8905	6.5	38
19	Commerzbank	464	4111	164	37	16	1.2	NA	5.1	NA	329	113128	NA	61
20	Hochtief	497	3918	784	130	95	5.1	56	1.2	3231	NA	2507a	9.1	32
21	VIAG	511	3827	242	61	36	2.0	15	3.0	6201	147	7051	13.5	71

Footnotes on page 115

IT'S THE WAY WE PUT THEM TOGETHER THAT SETS US APART.

At Motorola, we believe a cellular phone not only should work the first time out of the box, but we feel it should also be working years down the road.

And after we build them, we make it our business to ensure they're built right.

We put our phones through one of the most rigorous testing programs in the industry, exposing them to everything from temperature extremes to assorted shock and drop tests.

And this painstaking attention to quality pays off. Over the years the quality built into our phones has won over more than customers. It's also won some very prestigious awards. In 1988, Motorola received the first Malcolm Baldrige award, given by the President of the U.S. to recognize the quality of Motorola's equipment and services. And this year, Motorola received Japan's 1989 Nikkei award for creative excellence in products and services.

The fact is, when it comes to quality and durability, our phones don't just stand out. They stand alone.

MOTOROLA
1-800-457-0400

Ⓜ, Motorola Micro T•A•C and Digital Personal Communicator are trademarks of Motorola Inc © 1990 Motorola Inc

THE GLOBAL 1000

COUNTRY RANK		GLOBAL 1000 RANK	MARKET VALUE U. S. $ MIL.	PRICE PER SHARE U. S. $	% CHANGE FROM 1989 (U. S. $)	% CHANGE FROM 1989 (LOCAL)	PRICE/ BOOK VALUE RATIO	P/E RATIO	YIELD %	SALES U. S. $ MIL.	PROFITS U. S. $ MIL.	ASSETS U. S. $ MIL.	RETURN ON EQUITY %	INDUSTRY CODE
22	**Preussag**	518	3776	267	154	115	4.2	32	2.8	9426	NA	3150a	13.0	71
23	**Bayerische Hypotheken**	539	3672	222	20	2	1.5	NA	5.4	NA	164	90065	NA	61
24	**Linde**	582	3402	590	62	37	3.5	24	2.2	3225	106	2664	14.6	38
25	**Rheinelektra**	584	3396	1543	92	63	39.1	108	0.7	380*	25	374a*	36.0	38
26	**AEG**	606	3249	174	66	40	3.6	NA	1.3	724j	173	5433	NA	34
27	**Kaufhof**	617	3211	384	61	37	4.2	46	2.0	7688	NA	2666a	9.0	54
28	**Bayerische Vereinsbank**	629	3145	221	21	3	1.3	NA	5.4	NA	165	100532	NA	61
29	**Victoria Holding**	656	3031	1378	95	65	2.2	NA	0.5	2494a	52a	12431a	NA	63
30	**Deutsche Lufthansa**	657	3029	101	19	1	1.7	28	3.6	7720	NA	6157a	6.1	56
31	**Karstadt**	685	2887	401	54	31	3.2	41	2.3	7318a	84a	2912a	7.7	54
32	**Metallgesellschaft**	703	2822	371	90	61	3.2	28	2.5	11902	84	5378	11.6	71
33	**Schering**	707	2801	471	48	26	2.2	19	2.5	3457	133	3637	11.2	45
34	**Verein. Elek. Westfalen**	756	2643	132	55	31	2.3	21	4.2	3642	NA	6164a	10.8	12
35	**Holzmann (Philipp)**	781	2561	911	129	94	4.7	149	1.0	1543a	18a	1423a	3.2	32
36	**Feldmühle Nobel**	820	2435	304	84	56	2.3	25	3.0	5632	96	4092	9.1	26
37	**Aachener & Münchener Bet.**	859	2341	538	NA	NA	1.7	27	2.1	NA	41*	1419a*	6.4	63
38	**Heidelberger Zement**	863	2333	778	89	60	6.8	39	1.0	1193	NA	1110a	17.2	21
39	**Isar-Amperwerke**	883	2275	403	62	38	7.3	65	1.8	978	31	1818	11.2	12
40	**Nixdorf Computer**	886	2269	203	25	6	1.4	LOSS	NA	3105	NA	2860a	NEG	33
41	**Degussa**	989	2016	276	20	2	2.6	15	3.7	8490	103	3921	17.1	26

OTHER MARKETS AROUND THE WORLD

The Global 1000 ranking excludes companies from countries where stock markets are largely closed to foreign investors and where major corporations are often privately owned. Many of these companies are significant global competitors, and the list below includes those companies where annual revenues for the most recent fiscal year are over $1 billion.

Company	Sales U.S. $ Bil.	Profits U.S. $ Mil.
SOUTH KOREA		
SAMSUNG (Trading)	10.6	16
HYUNDAI (Trading)	8.0	7
DAEWOO (Trading)	6.7	302
KOREA ELECTRIC POWER	6.4	1,076
POHANG IRON & STEEL	6.1	203
SAMSUNG ELECTRONICS	5.6	223
HYUNDAI MOTOR	5.3	64
GOLDSTAR	3.6	25
LUCKY GOLDSTAR INT'L (Trading)	3.6	6
YUKONG	3.5	92
KIA MOTOR	2.6	39
SUNKYONG (Trading)	2.3	19
SSANGYONG	2.2	15
KOREA AIR	2.1	45
HYUNDAI ENG. & CONST.	1.9	27
LUCKY (Chemicals)	1.8	90
DAEWOO ELECTRONICS	1.7	20
HYOSONG (Trading)	1.6	1
DAELIM INDUSTRIAL	1.3	16
DONGAH CONST.	1.2	10
CHEIL SUGAR	1.1	55
HYUNDAI MOTOR SERVICE	1.0	34
DAEWOO HEAVY INDUSTRIES	1.0	21
TAIWAN		
CATHAY LIFE INSURANCE	3.4	138
CHINA STEEL	2.4	682
NAN YA PLASTICS	2.0	135
FIRST COMMERCIAL BANK	1.3	100
CHANG HWA COMMERCIAL BANK	1.3	65
HUA NAN COMMERCIAL BANK	1.3	77
TATUNG	1.2	56
FORMOSA PLASTICS	1.1	122
MEXICO		
TELEFONOS DE MEXICO	2.1	440
GRUPO INDUSTRIAL ALFA	2.0	366
VISA	1.4	41
CIFRA	1.3	105
VITRO	1.3	19
GRUPO DESC	1.2	95
CEMENTOS MEXICANOS	1.0	130
BRAZIL		
VOTORANTIM	2.3	90
PAO DE ACUCAR	1.8	22
VARIG BRAZILIAN AIRLINES	1.8	–187
COPERSUCAR	1.6	34
PETROLEO IPIRANGA	1.2	8

DATA: BW

† Fiscal 1988

KEY TO INDUSTRY CODES

Left-hand digit represents broad economic sector as defined by Morgan Stanley Capital International. Right-hand digit is industry classification code within each economic sector.

1. ENERGY
   - 11. Energy sources
   - 12. Electric & gas utilities
2. MATERIALS
   - 21. Building materials & components
   - 22. Chemicals
   - 23. Forest products & paper
   - 24. Nonferrous metals
   - 25. Steel
   - 26. Misc. materials & commodities
3. CAPITAL EQUIPMENT
   - 31. Aerospace & military technology
   - 32. Construction & housing
   - 33. Data processing & reproduction
   - 34. Electrical & electronics
   - 35. Electronic components & instruments
   - 36. Energy equipment & services
   - 37. Industrial components
   - 38. Machinery & engineering
4. CONSUMER GOODS
   - 41. Appliances & household durables
   - 42. Automobiles
   - 43. Beverages & tobacco
   - 44. Food & household products
   - 45. Health & personal care
   - 46. Recreation & other consumer goods
   - 47. Textiles & apparel
5. SERVICES
   - 51. Broadcasting & publishing
   - 52. Business & public services
   - 53. Leisure & tourism
   - 54. Merchandising
   - 55. Telecommunications
   - 56. Airlines
   - 57. Road & rail transportation
   - 58. Shipping
   - 59. Wholesale & international trade
6. FINANCE
   - 61. Banking
   - 62. Financial services
   - 63. Insurance
   - 64. Real estate

7 & 8. OTHER
   - 71. Multi-industry
   - 81. Gold mines

Footnotes on page 115

"KEEP IT CLEAN."

Madeleine Marchese
General Manager, Marketing
Texaco Syngas Inc.

"For five years, Texaco's gasification technology lighted 100,000 homes with clean energy from coal. We keep it clean with a gasification process that we invented and perfected. It's a very workable solution to a difficult environmental problem."

Madeleine Marchese is General Manager, Marketing for Texaco Syngas Inc.

"Our coal gasification process has produced over 2.5 billion kilowatt hours of electricity for California residents. That's a record no other coal gasification process has even come close to.

"The Texaco process has not only been proven economically, it exceeds the clean air standards proposed by the Bush Administration. That proposal is for the year 2000. Texaco is ready *now.*

"As a technology, coal gasification is a powerful tool in the fight against acid rain. As an alternate energy source, it makes us more energy self-sufficient. We have a 300 year supply of coal at current consumption rates.

"Texaco people have even devised ingenious methods to expand the technology for the gasification of municipal sludge. Our process is designed not only to get rid of sludge but to *transform* it into usable energy."

Clearly, there is enormous potential for America and its environment. And for the future.

Star of the American Road

TEXACO–WE'VE GOT THE ENERGY.

© 1996 IBM Corporation

ers...

out what they really connected...

...was us."

"We started out with stand-alone PCs, but then we remembered we aren't stand-alone people. We like to share information and toss ideas around, but our computers weren't in the act.

"So we did some brainstorming and, sure enough, came up with a brilliant solution.

"Somebody said, 'Let's call IBM.'"

The Solution. At IBM we've helped build more networks, and connected more computers, than anybody. Which means we've helped more people share information so they can work more productively.

We've helped people in big companies feel closer together. And helped smaller businesses perform like they're big. We've built a network that lets people on six continents communicate as if they're in one building. And we've enabled computers from many different vendors to all speak the same language.

To get closer with each other, get closer with us. Call 1 800 IBM-6676, ext. 974, and we'll arrange for an IBM marketing representative to call you.

THE GLOBAL 1000

ALPHABETICAL LIST OF COMPANIES

The number preceding each company is its Global 1000 rank. The code following each company shows its nationality and rank within that nation. To find the statistics for a company, turn to the country listing and look for the company by its rank.

A

859 Aachener & Munchener Bet. (WG-37)
91 ABB Asea Brown Boveri (SWE/SWI-1)
417 Abbey National (BR-34)
78 Abbott Laboratories (US-34)
612 Accor (FR-26)
669 ACEC Union Miniere (BE-5)
821 Advantest (JA-290)
606 AEG (WG-26)
727 Aegon (NE-8)
303 Aetna Life & Casualty (US-103)
856 AGA (SWE-17)
958 Ahmansson (US-[illegible])
301 Air Liquide (FR-1[illegible])
635 Air Products & Chemicals (US-208)
696 Aisin Seiki (JA-241)
184 Ajinomoto (JA-[illegible])
714 Akzo (NE-[illegible])
422 Allianz (WG-44)
364 Alcan Aluminium (CA-9)
816 Alfa Laval (SWE-16)
874 Algemene Bank Nederland (NE-12)
85 All Nippon Airways (JA-34)
569 Alleanza Assicurazioni (IT-11)
974 Allegheny Power System (US-319)
35 Allianz (WG-1)
787 Allied Irish Banks (IR-1)
298 Allied-Lyons (BR-28)
352 Allied Signal (US-122)
933 Alltel (US-299)
772 Alps Electric (JA-272)
310 Aluminum Co. of America (US-107)
595 Amada (JA-219)
943 Amax (US-304)
528 Amerada Hess (US-177)
838 American Barrick Resources (CA-21)
284 American Brands (US-97)
350 American Cyanamid (US-121)
322 American Electric Power (US-112)
114 American Express (US-42)
288 American General (US-100)
79 American Home Products (US-35)
77 American International Group (US-33)
839 American Stores (US-272)
13 American Telephone & Telegraph (US-4)
480 American TV & Communs. (US-164)
73 Ameritech (US-30)
30 Amoco (US-12)
323 AMP (US-113)
486 AMR (US-166)
834 Amro Bank (NE-10)
226 Anglo American (SA-2)
115 Anheuser Busch (US-43)
983 Anritsu (JA-331)
550 ANZ Group Holdings (AS-6)
604 Aoki (JA-223)
805 Aon (US-261)
363 Apple Computer (US-128)
608 Arabian Oil (JA-225)
232 Archer Daniels Midland (US-74)
474 Arco Chemical (US-160)
527 Argyll Group (BR-49)
369 Asahi Breweries (JA-141)
197 Asahi Chemical Industry (JA-84)
87 Asahi Glass (JA-36)
947 ASDA Group (BR-85)
NR ASEA (SWE-3)
382 Ashikaga Bank (JA-146)
905 Ashland Oil (US-291)
984 Asland (SP-11)
62 Assicurazioni Generali (IT-1)
658 Associated British Foods (BR-63)
219 Astra (SWE-2)
33 Atlantic Richfield (US-15)
439 Automatic Data Processing (US-149)

B

564 BAA (BR-54)
558 Baker Hughes (US-197)
868 Baltimore Gas & Electric (US-278)
412 Banc One (US-141)
435 Banca Commerciale Italiana (IT-7)
252 Banco Bilbao Vizcaya (SP-3)
399 Banco Central (SP-6)
374 Banco de Santander (SP-5)
800 Banco di Roma (IT-18)
538 Banco Español de Crédito (SP-7)
873 Banco Hispano Americano (SP-10)
833 Banco Popular Espana (SP-9)
410 Bank of Canton (JA-1[illegible])
401 Bank of Hiroshima (JA-153)
521 Bank of Yokohama (JA-195)
777 Bank of Montreal (CA-19)
792 Bank of New York (US-256)
891 Bank of Nova Scotia (CA-22)
57 Bank of Tokyo (JA-24)
180 Bankers Trust Yokohama (JA-79)
282 BankAmerica (US-96)
556 Bankers Trust New York (US-186)
876 Banyu Pharmaceutical (JA-308)
141 Barclays Bank (BR-12)
906 Barnett Banks (US-292)
158 BASF (WG-[illegible])
281 Bass (BR-[illegible])
66 Bayer (WG-[illegible])
307 Baxter International (US-105)
152 Bell Canada (CA-[illegible])
539 Bayerische Hypotheken (WG-23)
629 Bayerische Vereinsbank (WG-28)
NR BBC Brown Boveri (SWI-8)
152 BCE (Bell Canada Enterprises) (CA-1)
776 Becton, Dickinson (US-251)
49 Bell Atlantic (US-22)
31 BellSouth (US-13)
209 Berkshire Hathaway (US-66)
597 BET (BR-58)
986 BICC (BR-88)
988 Black (H&R) (US-325)
913 Blue Circle Industries (BR-82)
332 BMW (WG-14)
370 BNP (FR-15)
427 BOC Group (BR-35)
59 Boeing (US-25)
386 Boots (BR-31)
870 Boral (AS-12)
360 Borden (US-126)
925 Brambles Industries (AS-14)
214 Bridgestone (JA-90)
21 Bristol-Myers Squibb (US-7)
864 British Aerospace (BR-77)
799 British Airways (BR-73)
84 British Gas (BR-7)
25 British Petroleum (BR-1)
383 British Steel (BR-30)
27 British Telecommunications (BR-2)
149 Broken Hill Proprietary (AS-1)
960 Brown-Forman (US-312)
286 Browning-Ferris Industries (US-98)
204 BSN-Gervais Danone (FR-7)
108 BTR (BR-9)
373 BTR Nylex (AS-3)
704 Burlington Northern (US-234)
287 Burlington Resources (US-99)

C

162 Cable & Wireless (BR-15)
457 Cadbury Schweppes (BR-40)
254 Campbell Soup (US-82)
462 Canadian Imperial Bank (CA-11)
299 Canadian Pacific (CA-6)
678 Canal Plus (FR-29)
200 Canon (JA-87)
962 Canon Sales (JA-328)
869 Cap Gemini Sogeti (FR-37)
147 Capital Cities/ABC (US-51)
944 Capital Holding (US-305)
840 Carlsberg (DE-4)
637 Carnival Cruise Lines (US-210)
555 Carolina Power & Light (US-185)
463 Carrefour (FR-20)
698 Casio Computer (JA-242)
997 Castle & Cooke (US-328)
263 Caterpillar (US-86)
602 Cathay Pacific Airways (HK-6)
388 CBS (US-134)
648 Centel (US-215)
768 Centerior Energy (US-248)
526 Central & South West (US-176)
674 Champion International (US-224)
653 Chase Manhattan (US-217)
916 Chemical Banking (US-295)
375 Chemical Waste Management (US-130)
561 Cheung Kong Holdings (HK-5)
36 Chevron (US-17)
313 Chiba Bank (JA-120)
684 China Light & Power (HK-8)
577 Chiyoda Corp. (JA-211)
765 Chiyoda Fire & Marine (JA-268)
548 Chrysler (US-181)
477 Chubb (US-162)
67 Chubu Electric Power (JA-27)
592 Chugai Pharmaceutical (JA-216)
679 Chugoku Bank (JA-236)
227 Chugoku Electric Power (JA-95)
120 Ciba Geigy (SWI-4)
470 Cigna (US-158)
897 Ciments Francais (FR-39)
605 CIR (IT-15)
235 Citicorp (US-75)
926 Citizen Watch (JA-319)
852 Clorox (US-275)
712 CMB Packaging (FR-30)
831 CMS Energy (US-269)
391 CNA Financial (US-135)
560 Coastal (US-188)
23 Coca-Cola (US-9)
666 Coles Myer (AS-9)
443 Colgate-Palmolive (US-153)
961 Columbia Gas System (US-313)
572 Commercial Union Assurance (BR-55)
464 Commerzbank (WG-19)
270 Commonwealth Edison (US-91)
892 Compagnie Bancaire (FR-38)
392 Compaq Computer (US-136)
724 Computer Associates Intl. (US-239)
522 ConAgra (US-175)
348 Consolidated Edison of N. Y. (US-120)
503 Consolidated Natural Gas (US-172)
646 Consolidated Rail (US-213)
430 Contel (US-147)
384 Cooper Industries (US-133)
858 CoreStates Financial (US-276)
393 Corning (US-137)
510 Cosmo Oil (JA-190)
895 Courtaulds (BR-80)
305 CPC International (US-104)
343 CRA (AS-2)
846 Credit Foncier de France (FR-35)
446 Credit Lyonnais (FR-18)
488 Creditanstalt-Bankverein (AT-1)
576 Credito Italiano (IT-12)
245 CS Holding (SWI-7)
939 CSK (JA-322)
675 CSR (AS-10)
598 CSX (US-196)

D

157 Dai Nippon Printing (JA-71)
11 Dai-Ichi Kangyo Bank (JA-7)
600 Dai-Tokyo Fire & Marine (JA-221)
818 Daicel Chemical Industries (JA-289)
729 Daido Steel (JA-254)
320 Daiei (JA-122)
436 Daiichi Pharmaceutical (JA-166)
590 Daikin Industries (JA-215)
484 Daikyo Konko (JA-181)
779 Daimaru (JA-274)
42 Daimler-Benz (WG-2)
515 Dainippon Ink & Chemicals (JA-192)
739 Dainippon Pharmaceutical (JA-262)
931 Dairy Farm Intl. Holdings (HK-12)
390 Daishowa Paper (JA-150)
90 Daiwa Bank (JA-39)
238 Daiwa House Industry (JA-101)
88 Daiwa Securities (JA-37)
575 Dampskibsselskabet Af 1912 (DE-2)
571 Dampskibsselskabet Svendborg (DE-1)
345 Dayton Hudson (US-119)
160 De Beers (SA-1)
325 Deere (US-114)
989 Degussa (WG-41)
535 Delta Air Lines (US-179)
720 Deluxe (US-238)
788 Den Danske Bank (DE-3)
907 Denki Kagaku Kogyo (JA-313)
498 Detroit Edison (US-169)
60 Deutsche Bank (WG-4)
657 Deutsche Lufthansa (WG-30)
578 Development Bank of Singapore (SM-2)
130 Digital Equipment (US-45)
603 Dillard Department Stores (US-197)
74 Disney (Walt) (US-31)
444 Dominion Resources (US-154)
570 Donnelley (R. R.) & Sons (US-192)
872 Dordtsche Petroleum (NE-11)
759 Dover (US-245)
75 Dow Chemical (US-32)
711 Dow Jones (US-236)
196 Dresdner Bank (WG-12)
554 Dresser Industries (US-184)
899 Driefontein Consolidated (SA-4)
929 DSM (NE-13)
29 Du Pont (US-11)
327 Duke Power (US-115)
190 Dun & Bradstreet (US-58)

E

103 Eastman Kodak (US-39)
888 Eaton (US-282)
456 Ebara (JA-173)
967 EBES (BE-9)
699 Eisai (JA-243)
627 Elders IXL (AS-7)
968 Electrafina (BE-10)
683 Electrolux (SWE-11)
546 Electronic Data Systems (US-180)
99 Elf Aquitaine (FR-1)
667 Elsevier (NE-6)
179 Emerson Electric (US-55)
304 Endesa (SP-4)
367 Enimont (IT-6)
697 Enron (US-232)
472 Entergy (US-159)
366 Enterprise Oil (BR-29)
203 Ericsson (L. M.) (SWE-1)
887 Erste Allegemeine Vers. (AT-2)
551 Ethyl (US-183)
649 Eurotunnel (FR/BR-NM)
NR Eurotunnel (London) (BR-89)
NR Eurotunnel (Paris) (FR-42)
6 Exxon (US-3)

F

134 Fanuc (JA-60)
826 Federal Express (US-267)
431 Federal Home Loan Mortgage (US-148)
173 Federal National Mortgage (US-54)
820 Feldmuehle Nobel (WG-36)
596 Ferruzzi Finanziaria (IT-14)
68 Fiat Group (IT-2)
951 First Chicago (US-307)
910 First Interstate Bancorp (US-293)
937 First Union (US-302)
677 First Wachovia (US-225)
465 Fisons (BR-41)
814 Fleet/Northstar Financial (US-262)
744 Fletcher Challenge (NZ-1)
501 Fluor (US-171)
458 Fondiaria (La) (IT-8)
424 Food Lion (US-145)
43 Ford Motor (US-18)
448 FPL Group (US-155)
8 Fuji Bank (JA-4)
359 Fuji Electric (JA-140)
769 Fuji Heavy Industries (JA-270)
122 Fuji Photo Film (JA-55)
877 Fujikura (JA-309)
426 Fujisawa Pharmaceutical (JA-163)
379 Fujita Corp. (JA-144)
593 Fujita Tourist Enterprises (JA-217)
71 Fujitsu (JA-29)
733 Fukuoka City Bank (JA-257)
806 Fukuyama Transporting (JA-281)
453 Furukawa Electric (JA-170)

G

272 Gannett (US-93)
837 Gap (US-271)
862 Geico (US-277)
778 Gemina (IT-17)
689 Gencor (SA-3)
885 Genentech (US-281)
490 General Accident Fire & Life (BR-43)
168 General Electric (BR-16)
5 General Electric (US-2)
271 General Mills (US-92)
26 General Motors (US-10)
815 General Public Utilities (US-263)
215 General Re (US-69)
330 Generale de Belgique (BE-2)
973 Generale de Banque (BE-11)
186 Generale des Eaux (FR-6)
123 Generale d'Electricite (FR-2)
586 Genuine Parts (US-195)
495 Georgia-Pacific (US-167)
335 Gillette (US-117)
53 Glaxo Holdings (BR-4)
999 Gold Fields of South Africa (SA-5)
990 Golden West Financial (US-326)
969 Goodyear Tire & Rubber (US-316)
823 Grace (W. R.) (US-266)
991 Grainger (W. W.) (US-327)
148 Grand Metropolitan (BR-13)
935 Great Atlantic & Pacific Tea (US-300)
979 Great Lakes Chemical (US-323)
433 Great Universal Stores (BR-36)
835 Great Western Financial (US-270)
808 Green Cross (JA-283)
948 Groupe Bruxelles Lambert (BE-8)
471 Groupe Victoire (FR-21)
48 GTE (US-21)
574 Guardian Royal Exchange (BR-56)
127 Guinness (BR-11)
972 Gulf Canada Resources (CA-24)
491 Gunma Bank (JA-183)

H

414 Hachijuni Bank (JA-159)
355 Halliburton (US-124)
770 Hang Seng Bank (HK-11)
331 Hankyu Corp. (JA-128)
55 Hanson Trust (BR-5)
166 Hanwa (JA-74)
529 Hasegawa Komuten (JA-197)
562 Hattori Seiko (JA-207)
489 Havas (FR-22)
915 Hawker Siddeley Group (BR-83)
607 Hazama-Gumi (JA-224)
863 Heidelberger Zement (WG-38)
932 Heineken (NE-14)
194 Heinz (H. J.) (US-60)
365 Henkel (WG-16)
626 Hershey Foods (US-204)
128 Hewlett Packard (US-44)
992 Hidroelectrica Espanola (SP-12)
854 Hillsdown Holdings (BR-76)
760 Hilton Hotels (US-246)
762 Hino Motors (JA-267)
693 Hitachi Cable (JA-239)
836 Hitachi Chemical (JA-294)
17 Hitachi Ltd. (JA-11)
911 Hitachi Maxell (JA-315)
559 Hitachi Metals (JA-206)
306 Hitachi Zosen (JA-118)
497 Hochtief (WG-20)
167 Hoechst (WG-10)
841 Hokkaido Bank (JA-295)
402 Hokkaido Electric Power (JA-154)
236 Hokkaido Takushoku Bank (JA-100)
314 Hokuriku Bank (JA-121)
405 Hokuriku Electric Power (JA-156)
996 Holderbank (SWI-13)
781 Holzmann (Philipp) (WG-35)
395 Home Depot (US-138)
126 Honda Motor (JA-57)
479 Honeywell (US-163)
211 Hong Kong Telecommunications (HK-1)
965 Hongkong Electric Holdings (HK-13)
702 Hongkong Land (HK-9)
378 Hongkong & Shanghai Banking (HK-2)
326 Honshu Paper (JA-125)
517 Houston Industries (US-173)
976 Hoya (JA-329)
420 Humana (US-143)
432 Hutchison-Whampoa (HK-3)
942 Huvudstaden (SWE-19)
487 Hyogo Bank (JA-182)

I

668 Iberduero (SP-8)
651 IFI (IT-16)
917 IFIL (IT-24)
671 Illinois Tool Works (US-222)
534 Imasco (CA-13)
93 Imperial Chemical Industries (BR-8)
178 Imperial Oil (CA-2)
708 Inax (JA-246)
687 Inco (CA-17)
3 Industrial Bank of Japan (JA-2)
659 Ingersoll-Rand (US-219)
187 Intel (US-57)
713 Intercom (BE-6)
2 International Business Machines (US-1)
782 Intl. Flavors & Fragrances (US-253)
315 International Paper (US-108)
262 Intl. Thomson Organisation (CA-4)
909 Investor (SWE-18)
883 Isar-Amperwerke (WG-39)
324 Isetan (JA-124)
153 Ishikawajima-Harima Heavy Inds. (JA-[illegible])
257 Isuzu Motors (JA-106)
847 Italcementi (IT-21)
188 Itoh (C.) (JA-82)
129 Ito-Yokado (JA-58)
250 ITT (US-79)

J

670 Jacobs Suchard (SWI-12)
975 James River Corp. of Virginia (US-320)
398 Janome Sewing Machine (JA-152)
52 Japan Air Lines (JA-22)
866 Japan Radio (JA-304)
879 Japan Steel Works (JA-310)
715 Jardine Matheson Holdings (HK-10)
47 Johnson & Johnson (US-20)
183 Joyo Bank (JA-80)
725 Jujo Paper (JA-252)
404 Jusco (JA-155)

K

251 K mart (US-80)
109 Kajima (JA-50)
857 Kakusai Electric (JA-301)
754 Kandenko (JA-265)
809 Kanebo (JA-284)
849 Kanegafuchi Chemical Industry (JA-29[illegible])
37 Kansai Electric Power (JA-16)
880 Kansai Paint (JA-311)
336 Kao (JA-130)
685 Karstadt (WG-31)
617 Kaufhof (WG-27)
189 Kawasaki Heavy Industries (JA-83)
536 Kawasaki Kisen (JA-199)
102 Kawasaki Steel (JA-45)
244 KDD (JA-103)
499 Keihin Electric Express Railway (JA-18[illegible])
429 Keio Teito Electric Rail (JA-164)
588 Keisei Electric Railway (JA-213)
218 Kellogg (US-72)
817 Kerr-McGee (US-264)
316 Kimberly-Clark (US-109)
830 Kingfisher (BR-75)
663 Kinki Electrical Construction (JA-234)
135 Kinki Nippon Railway (JA-61)
107 Kirin Brewery (JA-49)
748 Knight-Ridder (US-241)
117 Kobe Steel (JA-53)
599 Koito Mfg. (JA-220)
557 Kokuyo (JA-205)
220 Komatsu (JA-91)
542 Konishiroku Photo Industry (JA-201)
553 Korakuen (JA-204)
151 Kubota (JA-67)
338 Kumagai Gumi (JA-131)
736 Kuraray (JA-259)
172 Kyocera (JA-77)
775 Kyodo Printing (JA-273)
137 Kyowa Bank (JA-62)
482 Kyowa Hakko (JA-179)
163 Kyushu Electric Power (JA-72)
573 Kyushu Matsushita Electric (JA-210)

L

415 Ladbroke Group (BR-33)
409 Lafarge Coppee (FR-16)
347 Laidlaw Transportation (CA-8)
438 Land Securities (BR-38)
660 Lasmo (BR-64)
621 Legal & General Group (BR-60)
923 Legrand (FR-40)
45 Lilly (Eli) (US-19)
185 Limited (US-56)
531 LIN Broadcasting (US-178)
881 Lincoln National (US-280)
582 Linde (WG-24)
766 Liz Claiborne (US-247)
544 Lloyds Abbey Life (BR-53)
289 Lloyds Bank (BR-26)

NM — not meaningful NR — not ranked

IT'S NOT JUST THE NEWEST SAAB. IT'S THE LATEST SETBACK FOR THE SPIRIT OF COMPROMISE.

Today, there are "safe" cars, luxury cars, performance cars, practical cars—a car for virtually every niche, it seems, and a niche for every car.

Except at Saab, where we've always built cars to fit not niches but needs—the needs of human beings unwilling to settle for something one or more dimensions short of a complete car. And the new Saab 9000S vividly illustrates the point.

Powered by the largest engine Saab ever built, the 9000S is a true European sports sedan, one capable of running all day at triple-digit, test-track speeds. Yet that engine achieves stirring response not at the expense of efficiency, but because of it.

A computer-driven engine management system—aided by Saab's patented Direct Ignition System—ensures that combustion occurs at the optimum moment for both performance and efficiency. And its emission control system is vigilant when it comes to maintaining exhaust requirements.

But the 9000S will also come as a pleasant surprise to those for whom cramped conditions are part of the price you pay for performance.

Its interior, according to *Motor Trend* magazine, is "cavernous." In fact, it is the only European import to meet EPA specifications as a "Large" car.

Fold down the rear seat, and you'll create enough cargo space to fit a six-foot sofa. Giving you a sports sedan that can become a station wagon at will, but without the performance penalties wagons sometimes impose.

Nor has safety been compromised for the sake of performance.

In the 9000S, the precise rack-and-pinion steering, anti-lock braking system and spirited new engine are considered to be safety components—designed to help you to avoid accidents in the first place.

But when the unavoidable occurs, the 9000S excels. Front and rear crumple zones absorb the force of impact, cushioning the steel safety cage. The driver's-side air bag and supplemental restraint systems cradle the passengers.

The result is vividly demonstrated in data compiled from over 250 insurance companies by the Highway Loss Data Institute. Its latest study ranks 9000-Series Saabs the safest cars in their class. Safer than Volvo or Mercedes-Benz.

Overall, the 9000S is what one editor called "a symphony on wheels...super-quick, impressively refined, exceptionally spacious, very comfy and flawlessly constructed."

In short, a car, not a compromise. And a "symphony" with a lower price of admission than the thinner melodies offered elsewhere.* It also offers daily performances at your Saab dealer, where you're invited to experience the 9000S through a test drive.

SAAB

WE DON'T MAKE COMPROMISES. WE MAKE SAABS.

*MSRP: $25,495, excluding taxes, license, freight, dealer charges and options. Price subject to change. © 1990 Saab-Scania of America, Inc

THE GLOBAL 1000

ALPHABETICAL LIST OF COMPANIES

The number preceding each company is its Global 1000 rank. The code following each company shows its nationality and rank within that nation.
To find the statistics for a company, turn to the country listing and look for the company by its rank.

903 Lockheed (US-289)
201 Loews (US-62)
955 Long Island Lighting (US-308)
20 Long-Term Credit Bank of Japan (JA-13)
764 Lonrho (BR-70)
159 LVMH Moet Hennessy (FR-3)
533 Lyonnaise des Eaux (FR-24)

M

875 Maeda Construction (JA-[illegible])
738 Makita Electric (JA-[illegible])
460 MAN (WG-18)
293 Mannesmann (WG-[illegible])
780 Manufacturers Hanover (US-252)
265 Marion Merrell Dow (US-88)
156 Marks & Spencer (BR-14)
793 Marriott (US-257)
309 Marsh & McLennan (US-106)
930 Martin Marietta (US-298)
206 Marubeni (JA-89)
258 Mar[illegible] (JA-102)
500 Masc[illegible] (US-170)
416 Matsushita Communication Ind. (JA-160)
24 Matsushita Electric Industrial (JA-14)
205 Matsushita Electric Works (JA-88)
797 Matsushita-Kotobuki Electronics (JA-278)
225 Matsuzakaya (JA-94)
896 Maxwell Communication (BR-81)
243 May Department Stores (US-76)
278 Mazda Motor (JA-113)
419 MCA (US-142)
520 McCaw Cellular Communs. (US-174)
110 McDonald's (US-40)
751 McGraw-Hill (US-243)
143 MCI Communications (US-49)
966 Mead (US-315)
308 Mediobanca (IT-5)
987 Medtronic (US-324)
825 Meiji Seika (JA-291)
362 Merrill Lynch (US-127)
734 MEPC (BR-67)
397 Mercedes Automobil-Holding (WG-17)
18 Merck (US-6)
822 Merrill Lynch (US-265)
703 Metallgesellschaft (WG-32)
851 Michelin (FR-36)
213 Microsoft (US-68)
291 Midi (Compagnie du) (FR-12)
532 Midland Bank (BR-50)
893 M. I. M. Holdings (AS-13)
728 Minebea (JA-253)
65 Minnesota Mining & Mfg. (US-27)
12 Mitsubishi Bank (JA-8)
76 Mitsubishi Corp. (JA-30)
95 Mitsubishi Electric (JA-41)
96 Mitsubishi Estate (JA-42)
716 Mitsubishi Gas Chemical (JA-249)
39 Mitsubishi Heavy Industries (JA-18)
231 Mitsubishi Kasei (JA-98)
454 Mitsubishi Metal (JA-171)
785 Mitsubishi Mining & Cement (JA-276)
349 Mitsubishi Motors (JA-136)
682 Mitsubishi Oil (JA-237)
494 Mitsubishi Petrochemical (JA-185)
644 Mitsubishi Rayon (JA-231)
64 Mitsubishi Trust & Banking (JA-26)
10 Mitsui Taiyo Kobe Bank (JA-6)
358 Mitsui Eng. & Shipbuilding (JA-139)
767 Mitsui Mining & Smelting (JA-269)
273 Mitsui O.S.K. Lines (JA-[illegible])
810 Mitsui Petrochemical Industries (JA-285)
144 Mitsui Real Estate Development (JA-64)
516 Mitsui Toatsu Chemicals (JA-193)
104 Mitsui Trust & Banking (JA-46)
150 Mitsui & Co. (JA-66)
297 Mitsukoshi (JA-117)
34 Mobil (US-16)
801 Mochida Pharmaceutical (JA-280)
824 Mondadori (Arnoldo) Editore (IT-19)
268 Monsanto (US-90)
461 Montedison (IT-9)
722 Moore (CA-18)
774 Morgan Stanley Group (US-250)
256 Morgan (J. P.) (US-84)
844 Mori Seiki (JA-297)
977 Morton International (US-321)
138 M[illegible] (US-47)
193 Munchener Ruck. (WG-11)
589 Murata [illegible] (JA-214)

N

451 Nagasaki [illegible]
353 Nagoya Railroad (JA-137)
619 Nanto Bank (JA-227)
396 National Australia Bank (AS-4)
901 National City (US-287)
705 National Medical [illegible] (US-235)
174 National Westminster [illegible] (BR-17)
317 Nationale-Nederlanden (NE-3)
489 Navigation Mixte (FR-[illegible])
753 Nippon [illegible] (JA-264)
902 Nippon Bank[illegible] (US-259)
396 Nippon [illegible] (US-168)
357 Nippon [illegible] (US-33)
[illegible] Nippon [illegible] Japan (JA-256)
50 Nippon [illegible] (JA-20)
41 Nestle (SWI-1)
519 New Japan Securities (JA-194)
408 Newmont Gold (US-140)
642 Newmont Mining (US-212)
964 News (AS-15)
523 NGK Insulators (JA-196)
641 Nichido Fire & Marine (JA-230)
447 Nichii (JA-168)
855 Nichirei (JA-300)
871 Nihon Cement (JA-306)
954 Niigata Engineering (JA-326)
673 Nike (US-223)
100 Nikko Securities (JA-43)
89 Nintendo (JA-38)
56 Nippon Credit Bank (JA-23)
812 Nippon Electric Glass (JA-287)
198 Nippon Express (JA-85)
407 Nippon Fire & Marine (JA-157)
908 Nippon Hodo (JA-314)
478 Nippon Kangyo Kakumaru (JA-177)
502 Nippon Kogaku (JA-187)
710 Nippon Light Metal (JA-248)
807 Nippon Meat Packers (JA-282)
292 Nippon Mining (JA-115)
154 Nippon Oil (JA-69)
467 Nippon Seiko (JA-175)
709 Nippon Sheet Glass (JA-247)
832 Nippon Shinpan (JA-293)
813 Nippon Shokubai Kagaku (JA-288)
28 Nippon Steel (JA-15)
1 Nippon Telegraph & Telephone (JA-1)
737 Nippon Television Network (JA-260)
239 Nippon Yusen (JA-102)
112 Nippondenso (JA-52)
676 Nishi-Nippon Bank (JA-235)
277 Nissan Fire & Marine (JA-112)
51 Nissan Motor (JA-21)
934 Nisshin Flour Milling (JA-321)
275 Nisshin Steel (JA-111)
950 Nisshinbo Industries (JA-325)
385 Nissho Iwai (JA-147)
706 Nissin Food Products (JA-245)
886 Nixdorf Computer (WG-40)
80 NKK (JA-31)
763 NMB Postbank Groep (NE-9)
19 Nomura Securities (JA-12)
631 Noranda (CA-15)
718 Nordstrom (US-237)
253 Norfolk Southern (US-81)
279 Norsk Hydro (NO-1)
946 Northeast Utilities (US-306)
900 Northern States Power (US-286)
267 Northern Telecom (CA-5)
957 Norwest (US-310)
941 Nova Corp. of Alberta (CA-23)
694 NTN Toyo Bearing (JA-240)
828 Nuovo Banco Ambrosiano (IT-20)
72 Nynex (US-29)

O

723 OCBC Overseas Chinese Bank (SM-3)
217 Occidental Petroleum (US-71)
329 Odakyu Electric Railway (JA-127)
199 Ohbayashi (JA-86)
634 Ohio Edison (US-207)
389 Oji Paper (JA-149)
466 Oki Electric Industry (JA-174)
639 Okumura (JA-229)
591 Olivetti Group (IT-13)
882 Olympus Optical (JA-312)
493 Omron Tateisi Electronics (JA-184)
418 Ono Pharmaceutical (JA-161)
721 Onoda Cement (JA-251)
993 Onward Kashiyama (JA-332)
783 Oracle Systems (US-254)
340 Oreal (FR-14)
650 Orient Finance (JA-232)
1000 Orix (JA-333)
380 Oryx Energy (US-132)
118 Osaka Gas (JA-54)
952 Osterreichische Landerbank (AT-3)

P Q

743 Pacific Dunlop Olympic (AS-11)
662 Pacific Enterprise (US-220)
161 Pacific Gas & Electric (US-52)
58 Pacific Telesis (US-24)
354 PacifiCorp (US-123)
654 Pancanadian Petroleum (CA-16)
894 Panhandle Eastern (US-284)
300 Paramount Communications (US-102)
221 Paribas (FR-8)
585 Pearson (BR-57)
547 Pechelbronn (FR-25)
665 Pechiney (FR-28)
982 Pechiney International (FR-41)
437 Peninsular & Oriental Steam (BR-37)
212 Penney (J. C.) (US-67)
620 Pennsylvania Power & Light (US-201)
740 Pennzoil (US-240)
798 Penta-Ocean Construction (JA-279)
54 PepsiCo (US-23)
746 Pernod Ricard (FR-32)
745 Perrier (FR-31)
230 Petrofina (BE-1)
240 Peugeot (FR-9)
136 Pfizer (US-46)
953 Pharmacia (SWE-20)
978 Phelps Dodge (US-322)
563 Philadelphia Electric (US-189)
16 Philip Morris (US-5)
371 Philips' Gloeilampenfabrieken (NE-4)
276 Phillips Petroleum (US-94)
789 Pilkington (BR-71)
248 Pioneer Electronic (JA-104)
860 Pirelli (IT-23)
469 Pitney Bowes (US-157)
513 Placer Dome (CA-12)
610 PNC Financial (US-198)
912 Polaroid (US-294)
741 Polly Peck International (BR-68)
630 Polygram (NE-5)
963 Potomac Electric Power (US-314)
341 PPG Industries (US-118)
518 Preussag (WG-22)
549 Primerica (US-182)
726 Procordia (SWE-12)
32 Procter & Gamble (US-14)
259 Prudential (BR-23)
318 Public Service Enterprise Group (US-110)
485 Quaker Oats (US-165)

R

411 Racal Electronics (BR-32)
285 Racal Telecommunications (BR-25)
333 Ralston-Purina (US-116)
524 Rank Organisation (BR-47)
980 Ranks Hovis McDougall (BR-87)
476 RAS (IT-10)
459 Raytheon (US-156)
638 Readers Digest Association (US-211)
625 Reckitt & Colman (BR-61)
730 Redland (BR-66)
936 Reebok International (US-301)
473 Reed International (BR-42)
242 Repsol (SP-2)
192 Reuters Holdings (BR-21)
566 Reynolds Metals (US-191)
584 Rheinelektra (WG-25)
506 Rhone-Poulenc (FR-23)
387 Ricoh (JA-148)
890 RMC Group (BR-79)
94 Roche Holding (SWI-2)
266 Rockwell International (US-89)
889 Rohm & Haas (US-283)
540 Rolls Royce (BR-51)
920 Rorer Group (US-296)
525 Rothmans International (BR-48)
312 Royal Bank of Canada (CA-7)
884 Royal Bank of Scotland Group (BR-78)
NR Royal Dutch Petroleum (NE-1)
4 Royal Dutch/Shell Group (NE/BR-NM)
504 Royal Insurance (BR-44)
757 Royale Belge (BE-7)
176 RTZ (BR-19)
681 Rubbermaid (US-226)
116 RWE (WG-5)

S

640 Saab-Scania (SWE-9)
848 Safeco (US-274)
661 Sagami Railway (JA-233)
853 SAI (IT-22)
233 Sainsbury (J.) (BR-22)
283 Saint-Gobin (Compagnie de) (FR-11)
170 Saitama Bank (JA-70)
647 Salomon (US-214)
829 San Diego Gas & Electric (US-268)
142 Sandoz (SWI-5)
752 Sandvik (SWE-13)
294 Sankyo (JA-116)
771 Sankyo Aluminium (JA-271)
643 Sanofi (FR-27)
624 Sanno (JA-228)
565 Santa Fe Southern Pacific (US-190)
14 Sanwa Bank (JA-9)
106 Sanyo Electric (JA-48)
794 Sanyo Securities (JA-277)
865 Sanyo-Kokusaku Pulp (JA-303)
567 Sapporo Breweries (JA-208)
264 Sara Lee (US-87)
609 Sato Kogyo (JA-226)
202 SCEcorp (US-63)
707 Schering (WG-33)
140 Schering-Plough (US-48)
98 Schlumberger (US-38)
747 Schneider (FR-33)
423 Schweiz. Ruck. (SWI-10)
613 Scott Paper (US-199)
928 Scottish & Newcastle Breweries (BR-84)
210 Seagram (CA-3)
819 Sears Holdings (BR-74)
113 Sears, Roebuck (US-41)
483 Secom (JA-180)
406 Security Pacific (US-139)
83 Seibu Railway (JA-33)
981 Seino Transportation (JA-330)
717 Seiyu (JA-250)
339 Sekisui Chemical (JA-132)
229 Sekisui House (JA-97)
731 Seventy-Seven Bank (JA-255)
139 Seven-Eleven Japan (JA-63)
105 Sharp (JA-47)
545 Shell Canada (CA-14)
NR Shell Transport & Trading (BR-3)
311 Shikoku Electric Power (JA-119)
919 Shimadzu (JA-318)
131 Shimizu Construction (JA-59)
552 Shin-Etsu Chemical (JA-203)
530 Shionogi (JA-198)
421 Shiseido (JA-162)
274 Shizuoka Bank (JA-110)
334 Showa Denko (JA-129)
940 Showa Line (JA-323)
842 Showa Shell Sekiyu (JA-296)
46 Siemens (WG-3)
845 Sime Darby (Malaysia) (SM-4)
403 Singapore Airlines (SM-1)
302 SIP (IT-4)
922 Sirti (IT-25)
790 Skandia (SWE-15)
581 Skandinaviska Enskilda Banken (SWE-6)
361 Skanska (SWE-4)
672 SKF (SWE-10)
121 SmithKline Beecham (BR-10)
921 Smurfit Group (IR-2)
959 Snow Brand Milk Products (JA-327)
269 Societe Generale (FR-10)
579 Solvay (BE-3)
61 Sony (JA-25)
222 Southern Co. (US-73)
938 Southern New Eng. Telecomms. (US-303)
69 Southwestern Bell (US-28)
791 STC (BR-72)
182 STET (IT-3)
618 Stora Kopparbergs Bergslags (SWE-8)
368 Student Loan Marketing Assn. (US-129)
690 St. Paul (US-228)
164 Suez (Cie Financiere de) (FR-4)
7 Sumitomo Bank (JA-3)
228 Sumitomo Chemical (JA-96)
177 Sumitomo Corp. (JA-78)
234 Sumitomo Electric Industries (JA-99)
505 Sumitomo Heavy Industries (JA-188)
381 Sumitomo Marine & Fire (JA-145)
111 Sumitomo Metal Industries (JA-51)
346 Sumitomo Metal Mining (JA-135)
468 Sumitomo Realty & Dev. (JA-176)
70 Sumitomo Trust & Banking (JA-28)
440 Sun (US-150)
450 Sun Alliance & London Insurance (BR-39)
680 Sun Hung Kai Properties (HK-7)
786 Sun Microsystems (US-255)
655 SunTrust Banks (US-218)
970 Super Valu Stores (US-317)
827 Suzuki Motor (JA-292)
614 Svenska Cellulosa Aktiebolaget (SWE-7)
761 Svenska Handelsbanken (SWE-14)
492 Swire Pacific (HK-4)
237 Swiss Bank Corp. (SWI-6)
280 Syntex (US-95)
628 Sysco (US-205)

T

169 Taisei (JA-75)
357 Taisho Marine & Fire Insurance (JA-138)
394 Taisho Pharmaceutical (JA-151)
434 Takashimaya (JA-165)
155 Takeda Chemical Industries (JA-70)
927 Tanabe Seiyaku (JA-320)
691 Tandem Computers (US-229)
622 Tandy (US-202)
633 Tarmac (BR-62)
342 TDK (JA-133)
372 Teijin (JA-142)
914 Teikoku Oil (JA-316)
356 Tele-Communications (US-125)
241 Telefonica Nacional de Espana (SP-1)
998 Temple Inland (US-329)
208 Tenneco (US-65)
945 Terumo (JA-324)
296 Tesco (BR-27)
82 Texaco (US-36)
580 Texas Instruments (US-193)
255 Texas Utilities (US-83)
924 Textron (US-297)
803 Thomson-CSF (FR-34)
512 Thorn EMI (BR-46)
351 Thyssen (WG-15)
295 Time Warner (US-101)
441 Times Mirror (US-151)
735 Tobishima (JA-258)
290 Tobu Railway (JA-114)
594 Toho Co. (JA-218)
742 Toho Gas (JA-263)
145 Tohoku Electric Power (JA-65)
38 Tokai Bank (JA-17)
81 Tokio Marine & Fire (JA-32)
587 Tokyo Broadcasting System (JA-212)
15 Tokyo Electric Power (JA-10)
543 Tokyo Electron (JA-202)
86 Tokyo Gas (JA-35)
508 Tokyo Steel Mfg. (JA-189)
92 Tokyu Corp. (JA-40)
601 Tokyu Department Stores (JA-222)
568 Tokyu Land (JA-209)
249 Tonen (JA-105)
223 Toppan Printing (JA-92)
224 Toray Industries (JA-93)
804 Torchmark (US-260)
985 Toro Assicurazioni (IT-26)
400 Toronto-Dominion Bank (CA-10)
40 Toshiba (JA-19)
850 Tosoh Corp. (JA-299)
413 Total Francaise Petroles (FR-17)
376 Toto (JA-143)
537 Toyo Menka Kaisha (JA-200)
344 Toyo Sash (JA-134)
445 Toyo Seikan Kaisha (JA-167)
165 Toyo Trust & Banking (JA-73)
514 Toyobo (JA-191)
321 Toyoda Automatic Loom Works (JA-12)
9 Toyota Motor (JA-5)
191 Toys 'R' Us (US-59)
611 Tractebel (BE-4)
719 Trafalgar House (BR-65)
664 Transamerica (US-221)
994 TransCanada PipeLines (CA-25)
636 Travelers (US-209)
616 Tribune (US-200)
796 Trizec (CA-20)
541 Trusthouse Forte (BR-52)
652 TRW (US-216)
507 TSB Group (BR-45)
795 Turner Broadcasting (US-258)
902 Tyco Laboratories (US-288)
904 Tyson Foods (US-290)

U

583 UAL (US-194)
481 Ube Industries (JA-178)
949 Ultramar (BR-86)
44 Unilever (NE/BR-NM)
NR Unilever NV (NE-2)
NR Unilever PLC (BR-20)
181 Union des Assurances de Paris (FR-5)
995 Union Bank of Finland (FI-1)
119 Union Bank of Switzerland (SWI-3)
773 Union Camp (US-249)
701 Union Carbide (US-233)
758 Union Electric (US-244)
216 Union Pacific (US-70)
878 Unisys (US-279)
956 United Artists Entertainment (US-309)
749 United Biscuits (Holdings) (BR-69)
247 United Technologies (US-78)
171 United Telecommunications (US-53)
867 Unitika (JA-305)
260 Unocal (US-85)
784 Uny (JA-275)
246 Upjohn (US-77)
97 US West (US-37)
843 USF&G (US-273)
632 UST (US-206)
195 USX (US-61)

V

133 VEBA (WG-8)
756 Verein Elek. Westfalen (WG-34)
695 Viacom (US-231)
511 VIAG (WG-21)
455 Victor Co. of Japan (JA-172)
656 Victoria Holding (WG-29)
124 Volkswagen (WG-6)
425 Volvo (SWE-5)

W

686 Walgreen (US-227)
22 Wal-Mart Stores (US-8)
207 Warner-Lambert (US-64)
623 Washington Post (US-203)
63 Waste Management (US-26)
175 Wellcome (BR-18)
475 Wells Fargo (US-161)
645 Western Mining (AS-8)
146 Westinghouse Electric (US-50)
452 Westpac Banking (AS-5)
319 Weyerhaeuser (US-111)
971 Whirlpool (US-318)
615 Whitbread (BR-59)
692 Whitman (US-230)
750 Winn Dixie Stores (US-242)
509 Winterthur (SWI-11)
442 Woolworth (US-152)
898 Wrigley (Wm.) Jr. (US-285)

X Y Z

428 Xerox (US-146)
688 Yakult Honsha (JA-238)
811 Yamaha (Nippon Gakki) (JA-286)
125 Yamaichi Securities (JA-56)
328 Yamanouchi Pharmaceutical (JA-126)
861 Yamato Transport (JA-302)
755 Yamazaki Baking (JA-266)
261 Yasuda Fire & Marine (JA-108)
101 Yasuda Trust & Banking (JA-44)
700 Yokogawa Electric (JA-244)
918 Yokohama Rubber (JA-317)
337 Zurich Vers. (SWI-9)

NM not meaningful NR not ranked

POT OF GOLD AT HE BOTTOM OF A POTHOLE?

unicipal-bond insurer MBIA's stock is up 34% in two months

he municipal market is a great place for what Wall Street likes to call stories—distinctive selling nts that can be used to get an inves- s attention. It might be a bond sales- son promoting the safety of a rural ver-and-water district's issue or nes Lebenthal hawking the triple tax- mpt yield of New York City's bonds. ese days, though, the most intriguing ni story is the stock of Municipal nd Investors Assurance Inc.

he pitch is simple: Here's an insur- e company that last year ed in $137 million of premi- s but in its 16 years of op- tion has never paid out a im. The Armonk (N. Y.) npany stands to gain fur- r if and when the much- alded rebuilding of Ameri- s infrastructure takes off.

he story is playing big, h MBIA's stock up 34% in two months (chart). The npany is the largest of the ee major muni insurers, ch promise to make good interest and principal pay- nts if issuers default. nded by Aetna, Fireman's nd, CIGNA, Continental In- ance, and Travelers, the sortium began selling res to the public in 1987. In y, the company sold 5.1 lion shares, as Aetna Life Casualty and the other prin- al owners trimmed their kes. An additional 1.5 mil- newly issued shares were d, doubling public owner- p of MBIA to 33%.

RE PAYOUTS. Big investment houses h as Salomon Brothers Inc. and Mer- Lynch & Co. have fueled interest by ginning to report on MBIA in recent nths, including strong recommenda- ns. Their logic is compelling. While tes and cities increasingly find their dgets pinched, they are also under ssure to rebuild decrepit roads and dges. Factor in federal budget cuts, d borrowing through munis is about only way left to fund public works.

Beleaguered local issuers are willing to fork over premiums for bond insurance because, overall, it can lower the cost of borrowing. How? Thousands of localities don't qualify for an AAA rating by Moody's Investors Service Inc. or Standard and Poor's Corp. But MBIA and its main competitors have the top ratings, and all the bonds they insure become AAA. Currently, that means investors would accept a 7.5% yield instead of the 8% a weak issuer might have to pay.

But if MBIA's strategy continues to work, the act of paying a claim will remain hypothetical, or at least a rarity. The company only insures investment-grade bonds—those rated BBB or better. "We are not in the business to enhance the creditworthiness of marginal borrowers," says MBIA President David H. Elliott. Rather, MBIA views itself as a research house for municipal investors.

MBIA'S ELLIOTT: STEADY, PREDICTABLE EARNINGS

If history is any guide, the game plan is sound. In the last 50 years, less than 0.3% of investment-grade muni bonds have defaulted. That includes the giant failure of the Washington Public Power Supply System (WHOOPS) in 1983 on $2.25 billion of its bonds. Fortunately for MBIA, WHOOPS bonds were insured by a rival, AMBAC Indemnity Corp., which is still paying claims.

The penalty for a misstep could be severe. MBIA's pledge backs more than $140 billion-worth of interest and principal payments, supported by only $1.6 billion in reserves. The company has had a couple of close calls with hospitals that borrowed under the aegis of municipalities. MBIA officials became involved in reshuffling management of the hospitals to avoid defaults.

STRETCHED THIN? Bondholders with MBIA-backed paper could suffer, too, even if their own issuer is solid. If MBIA stumbles and loses its top credit rating, thousands of bond issues will likely be downgraded along with it, inflicting huge losses on the investing public. And by one measure of leverage, MBIA might be viewed as stretched thin, notes Mark H. S. Cohen, an analyst at Fitch Investors Service. After acquiring Bond Investors Guaranty Insurance Co. last year, MBIA had almost $200 of insurance exposure for every $1 of capital.

Elliott says such ratios don't take into account MBIA's conservative approach, which stresses geographical diversity. It also weights its portfolio with safer, traditional munis —those backed by revenues from taxes or utilities.

Along with credit quality, MBIA also has to worry about increasing competition. Last year, rate-cutting helped trim revenue from new premiums at MBIA by 5.7%. But this is one problem that will take a while to hit the bottom line because only about 5% of a year's new premiums ends up there. The rest goes into a reserve. As the bonds are repaid and MBIA's exposure dwindles, the reserve money goes into earnings. That's why net income grew 11.3%, to $102 million, last year. "It's almost like an annuity," crows Elliott.

The prospect of steady, predictable earnings warms the hearts of analysts. Even with the stock bouncing around its all-time high, MBIA is still "a good intermediate- to long-term play," says Margaret M. Alexandre at Salomon Brothers Inc. Unless the fabric of the country's cities, states, and towns unravels badly, playtime at MBIA shouldn't end soon.

By David Zigas in Armonk, N. Y.

THE PSNH NUCLEAR POWER PLANT IN SEABROOK, N. H.: ITS $6.5 BILLION PRICE TAG PUT THE UTILITY IN CHAPTER 11 BACK IN 1988

'I KNEW NOTHING ABOUT ANY TRADING IN NAKED OPTIONS'

Who risked the pension fund at Public Service of New Hampshire?

Over two tortuous decades, Public Service Co. of New Hampshire issued all manner of financial exotica to fund the Seabrook nuclear power plant. Wall Street played along, and Seabrook got built. But after Seabrook, PSNH managers brought their financial creativity to bear on the employee pension fund—with disastrous results.

Northeast Utilities (NU), which took over management control of PSNH in April, has launched an internal investigation of a $24 million loss at the utility's $125 million pension fund. In a June 7 filing with the Securities & Exchange Commission, NU disclosed: "It appears that many of the investments in that portfolio were outside the authorized investment policies for that portfolio." NU won't give any details, but several former PSNH employees in a position to know told BUSINESS WEEK they were made in a high-risk investment game: selling naked options.

BRUTAL LOSSES. Trading in naked stock options is a shoot-the-moon strategy for playing the market. Sellers of naked call options don't own the shares they're pledged to deliver. They are betting that the stock will fall in price. But such options can cause brutal losses if their seller has to deliver high-priced shares to a buyer who has locked in a lower price.

At PSNH, unauthorized investments cost the pension fund nearly 20% of its value. The plan remains overfunded, and pensioners haven't missed a payment. But in the SEC filing, NU said it may have to shell out $1 million a year indefinitely to cover the loss, unless it can recoup some of the money through insurance or other remedies.

PSNH said the money was lost from an internally managed portfolio, not from two others run by outside firms. Former employees claim NU's investigation is focusing on at least two former PSNH executives: Assistant Treasurer Dennis D. Race and his direct superior, Treasurer George Branscombe. NU had replaced both executives, along with 13 others, when it took over management control of PSNH on Apr. 30—before it discovered the pension mess. Also said to be targeted is Charles E. Bayless, the former chief financial officer, who left the company last December.

While Bayless was CFO, these sources say, Race traded in naked call options on stocks through Prudential-Bache Securities Inc. When the market turned up sharply this year, Race apparently was caught unprotected. Race declined to comment, as did Pru-Bache.

> Sellers of naked call options don't own the shares they're pledged to deliver. They are betting stock prices will fall

Trading in naked options isn't specifically prohibited by the federal Employee Retirement Income Security Act (ERISA). But if the Labor Dept. finds that a pension fund has been managed imprudently, it may seek restitution or a change in the fund's management.

PSNH was struggling long before Race allegedly started playing with naked options. Buried by its $6.5 billion investment in the long-delayed Seabrook project, PSNH sought Chapter 11 bankruptcy protection in January, 1988. NU agreed to acquire it in December, 1989. PSNH is still in bankruptcy.

KEEPING MUM. Northeast says it didn't examine PSNH's pension fund before it bought the utility. "It wasn't part of the bankruptcy, and there was no ability for creditors [to claim the fund's assets]," says an NU spokesman. It's not clear, in fact, who was aware of Race's alleged strategy. Bayless says that, about five years ago, PSNH's pension board authorized Race to sell call options as hedges on stocks in the pension portfolio. But he says Race wasn't authorized to trade in options not hedged against PSNH-owned securities. Bayless, now chief executive officer at Tuscon Electric Power Co., pleads ignorance: "I knew nothing about any trading in naked options, and I would have fired anybody who was doing it." Branscombe, Race's direct superior, is keeping mum.

Meanwhile, PSNH's auditor, KPMG Peat Marwick, has held up its opinion on the pension fund's 1989 results. Whatever the outcome, Northeast now has to wonder whether PSNH's former management left behind any other nuclear waste.

By Geoffrey Smith in Boston

GENE G. MARCIAL

S VIACOM PLOTTING PLAY FOR A INBALL WIZARD?

Remember the once-ubiquitous pinball machine? It's attempting a comeback, and if it gets hot ain, one big winner will be WMS Instries. That's why WMS has become alluring takeover candidate, say ne pros. The major designer and nufacturer of pinball and video mes controls 80% of the global pinl market.

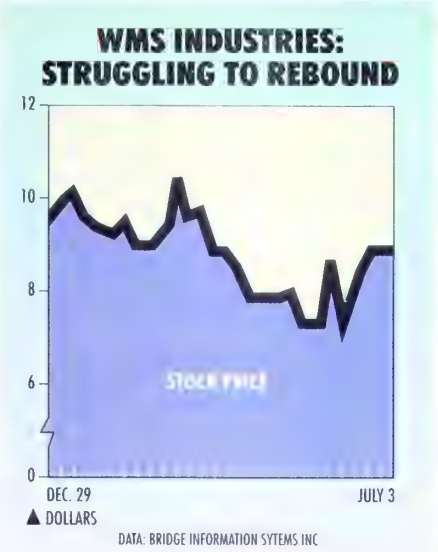
VMS, formerly Williams Electronics, l been beaten down to as low as $7 a are in May from about $11 because a number of unforeseen short-term blems affecting the two hotels the npany controls in Puerto Rico. But avy buying hit the stock in recent eks, lifting the shares to $9.

And some pros think it's just the rt of a big move for this Big Board npany. They're convinced that WMS l be the next takeover play in the ertainment business. The rumored tor: Viacom Chairman Sumner Redne, who has already accumulated a 9% stake. He bought WMS shares in open market through the end of cember, then stopped. The purchas- of record was his National Amusents, a major operator of movie thers that owns 83% of Viacom.

The halt in Redstone's buying coined with Viacom's announcement of new class of nonvoting common ck. The new class B stock, explained dstone, would provide Viacom with reater financial flexibility" and uld "enhance its ability to expand its e businesses and seize opportunities the growing global marketplace."

E FIT. That means that Redstone, ough either Viacom or National nusements, "is now ready to make a ve on WMS," insists investment ader Charles LaLoggia, who scouts for npanies that he deems ripe for a teover or restructuring. "As the ding worldwide manufacturer of ball and video games, WMS would fit ely within Redstone's entertainment pire," says this pro, who puts WMS' eakup, or takeover, value at $18 to a share. Redstone paid $11⅜ a are for most of his WMS holdings.

VMS is very much a global company, h a big market in Western Europe, ecially Germany. Last year, it ded 63% of sales and 57% of earnings



from pinball and video games. Exports to Europe supplied about half of total pinball and video-game sales of $90 million. In the fiscal year ended June 30, analysts expect WMS to report earnings exceeding last year's 34¢ a share. Next year earnings could top $1.

WMS became a big factor in the pinball business after it acquired the pinball and video-game operations of Bally Manufacturing in 1988. Recently, WMS introduced a pinball machine with advertising in the form of flashing loops and musical jingles during games. In April, WMS signed a pact with Acclaim Entertainment, one of Nintendo's largest video-game suppliers, to market WMS' games as cartridges for Nintendo. A Viacom spokeswoman says the company doesn't comment on market rumors. WMS didn't return calls.

A SAVVY SLEEPER IN SEMICONDUCTORS

The stock of Lam Research has slumped to $6 a share from $9 in just a month. And this manufacturer of equipment to make semiconductor wafers concedes that there are down quarters to come. So with the semiconductor industry currently in a slow stretch, why are several Street pros buying Lam shares?

"It's a compelling investment," says a New York money manager who argues that Lam is well-managed and well-financed, with a powerful lineup of products used to fabricate very large-scale integrated (VLSI) circuits. It's cash-rich, too, with over $5 million cash and a book value of $5 a share.

But what intrigues this pro most is Lam's link with several big Japanese companies, including Sumitomo Metal Industries, which has acquired a stake of 500,000 shares at $10 a share; Canon; and Tokyo Electron. Lam markets and services Sumitomo's integrated-circuit technology in North America and Europe, while Sumitomo does the same for Lam's equipment in Japan. A cross-licensing deal between Lam and Sumitomo to manufacture these products is expected this year.

"If Lam's technology holds up and keeps Sumitomo happy, Sumitomo may end up buying more Lam shares—or the entire company," says Jim Awad, president of BMI Capital, which has accumulated nearly 5% of Lam. Awad figures Lam is worth $11 a share—and will certainly be worth that much when the semiconductor industry recovers.

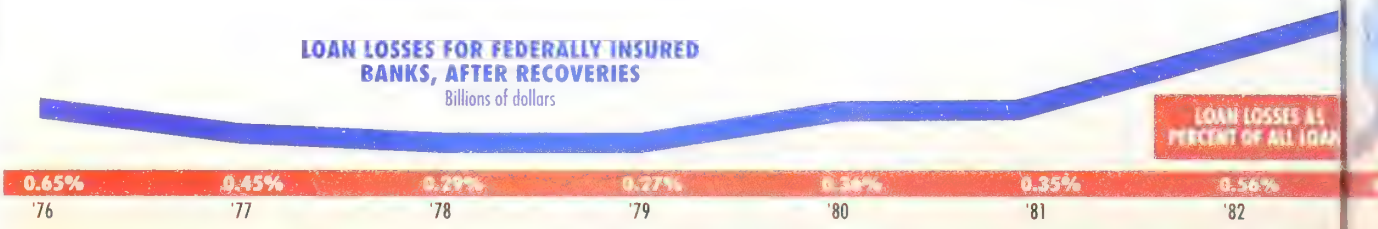
Awad has scaled back his earnings expectations for the year ended June 30, 1990, to 55¢ a share from an earlier 65¢. But he's staying with his estimate of 80¢ to 90¢ a share for next year. Concludes Awad: Lam is "a cheap way to play the semiconductor cycle—with a takeover kicker to boot."

THIS DIET DEAL MAY BE WORTH A SPLURGE

With fitness a national obsession, Keegan Management should be in pretty good shape. But it isn't. Despite being the largest franchisee of the Nutri/System weight-loss centers and one of the few public companies that offers a pure play in the burgeoning diet-and-fitness industry, Keegan's stock is down to its lowest level this year—$3¼ a share. And the company says it will post a loss for the second quarter.

Why? Keegan's big problem is adverse publicity arising from some 18 lawsuits filed against Nutri/System in Florida by dissatisfied former participants. But some daring bargain-hunters in Keegan stock see it as a pure asset play. Their reasoning: The company has cash of $3.57 a share from the recent sale of 31 weight-loss centers in San Francisco that accounted for 59% of total revenues. And its remaining 43 centers in the Midwest are worth $2.85 a share, according to one analyst, for a total of $6.42. That's quite a bargain, says an asset player who expects earnings for 1990 to exceed last year's 59¢ a share. Indeed, "Keegan may have seen the worst of its problems," concludes one California fund manager.

BANKS
IS BIG TROUBLE BREWING?



It was a balmy New England Sunday as crowds lined the shores of a specially built canal adjoining the Charles River in Cambridge, Mass. Lured by a barrage of radio and newspaper ads, couples, families with children in tow, and scores of single folks were there for the first annual Thomas Graves' Landing scale-model boat regatta. Through the day, some 1,000 stopped by to watch the three-foot yachts and battleships maneuver through the water.

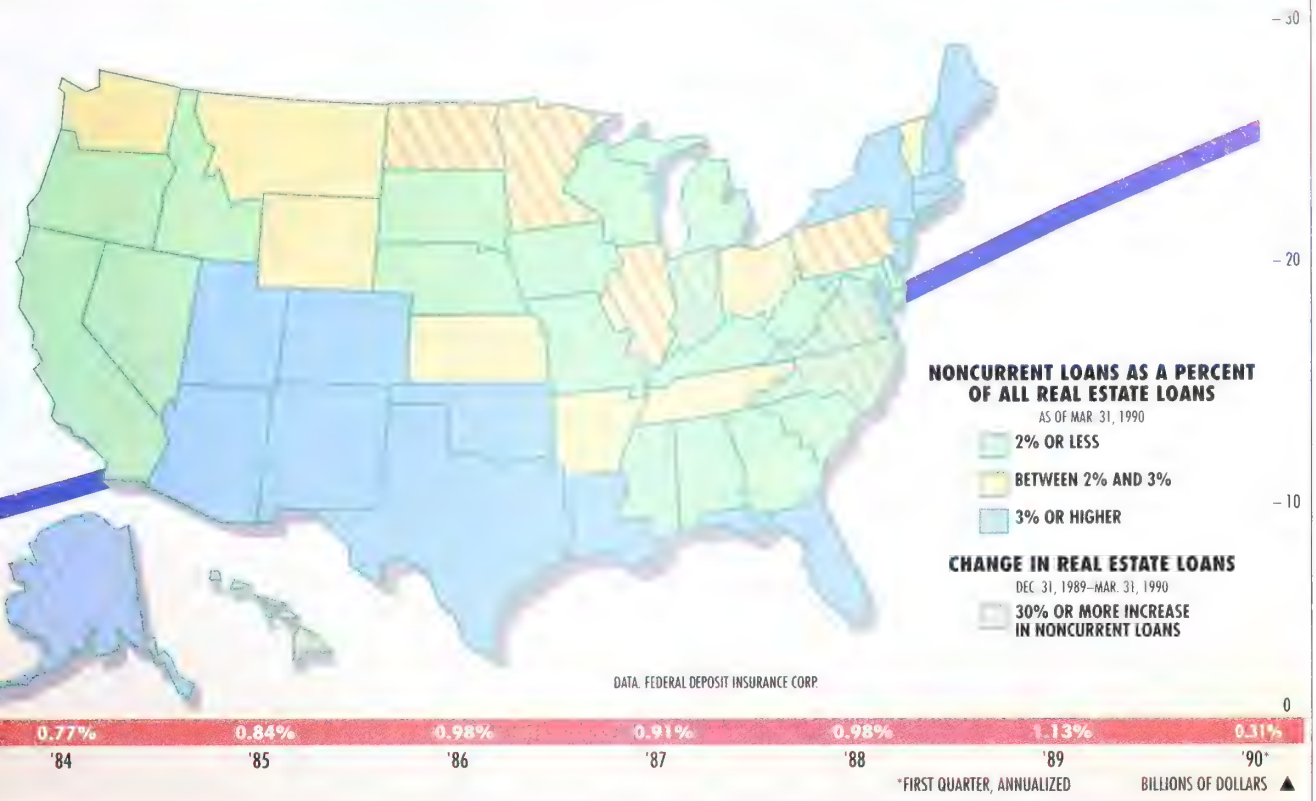
Few in the casual throng realized that they also had front-row seats at a far different spectacle: a severe banking crunch of national proportions. Thomas Graves' Landing is a $41 million, eight-story condominium that stands almost half empty. The Bank of New England seized 85 of the red-brick structure's 170 units when developers couldn't find buyers. And a real estate firm hired by the bank hoped the regatta might just scare up some buyers. But only 50 people expressed even the slightest interest in condos. "It's not a question of whether the project should have been built," said Jay M. Grossman, the workout specialist heading the effort. "It's a question of whether the timing was correct."

Unfortunately, many of the nation's commercial bankers have had to ask themselves this question all too frequently in the past decade. In the early 1980s, bad timing led to a slew of bad loans in the oil patch. Then, lenders suffered a bout of bad loans in the farmland and the Third World. Now, banks around the country are being trapped by the recoiling real estate market (map). Altogether, banks are writing off some $20 billion in various loans annually—some five times the amount at the dawn of the 1980s. That saps earnings, pushes bank stocks lower, and undermines the commercial-banking industry at a time when it's facing unprecedented competition from foreign banks and a new generation of domestic challengers.

The margin for error is growing thinner. Banking consultant Lowell Bryan of McKinsey & Co. estimates that risk loans for commercial real estate, to developing countries, and to debt-heavy companies total $600 billion, or 2½ times stockholder's equity and loan-loss reserves at the banks. More ominous for taxpayers, who are already bailing out the insurance fund for savings-and-loan institutions, is the sorry shape of the banks' federal deposit-insurance fund. Largely because of the bailouts of Texas banks, the Bank Insurance Fund spent more than it took in last year for the second straight time since its creation in 1933.

And the worst may still be ahead. Typically, bank problems become most intense in the later stages of a recession, as corporate and individual borrowers alike become strapped. This time loan losses are mounting and the list of problem banks remains extraordinarily high despite an economic expansion that's bidding to become the longest in postwar history. If the economy stumbles, Donald Trump won't be the only one to serve notice to the banks

TRUMP'S SLUMP Manny Hanny says it will place $150 million in Trump loans on its nonperforming list for the second quarter



loans made with optimistic assump-
s in the 1980s look a lot different in
1990s. "Time is running out on us,"
s William M. Isaac, former chairman
he Federal Deposit Insurance Corp.
ere is a point where you can't re-
ve it, when the capital markets lose
n in the industry. We're not at a
t that's irreversible now, but at a
t that's very serious."

T DOWN.' Banks won't be the only
s to feel the pain. There already are
s that loans are harder to come by
some. "Lending has shut down for
mercial developers," says Atlanta
estate developer Bob Phillips. "You
t get money to do anything." Small
inesses and corporate
rowers are also complain-
Richard A. Damsel,
irman of Leaseway
nsportation Corp., spent
nths hammering out a
t restructuring for his
bled leveraged buyout.
doubt a lot of our in-
ity to get a restructuring
e is the result of prob-
s in the banking commu-
," he says. "It's hard to
credit."

may be tempting to
w parallels between com-
cial banks' travails and
savings-and-loan fiasco.
't. In a BUSINESS WEEK/
Harris poll on key issues involving the banking system, people rightly made a clear distinction between banks and the S&Ls (page 148). The S&L blowout took place in an atmosphere of unprecedented regulatory laxity. Sure, a few banks, such as First American Bank & Trust in North Palm Beach, Fla., have slipped through the regulatory net (page 150). But in general, bankers believe regulators are getting tougher. Says First Union Senior Vice-President Gene Clark, whose real estate portfolio at the Charlotte (N. C.) bank just went through a regulatory exam: "This was the most thorough and stringent exam I've ever experienced." But he's not complaining: "All of us have sat back in horror at what happened in the S&L industry."

S&Ls are also structured differently. The high-flying S&Ls were undercapitalized, closely held institutions that were, in many instances, looted by their owners. By contrast, banks have responded to pressure from regulators and the markets in recent years by padding the capital cushions that are the first defense against loan losses (charts, page 149). And most big banks are publicly held corporations whose financial affairs are there for all to see every quarter.

Still, even if the problems add up to only a fraction of the woes that descended on the S&L industry, the consequences could be devastating. With $3.2 trillion in assets, commercial banking is almost triple the size of the S&L industry—and far more critical to the U. S. economy. Even though the improvement in the oil patch and the farm belt have reduced the number of problem banks since 1987, they remain unusually numerous: 1,058, or 8% of the nation's 12,588 commercial banks.

How did staid, pin-striped bankers get into such a mess? For one thing, the clubby world of traditional banking left them ill-pre-

BLEAK TIMES IN BRAZIL It owes U.S. banks $16.3 billion—and halted debt payments last year. A speedy resolution seems unlikely

PHOTOGRAPH BY HUMBERT [illegible] MAP BY [illegible]

Business Week/Harris Poll

AMERICANS THINK BANKS ARE SOLID, BUT...

Americans still trust their banks, but they have their doubts. Of those polled, 89% ranked banks as safe or very safe places for their money. But, as the savings-and-loan bailout expands, 57% feel that some bank bailouts will be necessary, too. And 26% favor lowering banks' $100,000 deposit guarantee.

HOW SAFE IS YOUR BANK?

■ How safe a place to put your money into do you think each of the following is—very safe, somewhat safe, not very safe, or not safe at all?

	Very safe	Somewhat safe	Not very safe	Not at all	Not sure
Savings and loans	28%	33%	20%	15%	4%
Regular commercial banks	47%	42%	5%	3%	3%
Credit unions	44%	36%	6%	4%	10%
Money market funds	28%	43%	11%	6%	12%
Mutual funds	23%	48%	11%	4%	14%
Individual stocks	13%	39%	30%	9%	9%

DO YOU THINK MANY MORE WILL FAIL?

■ Compared with the number of regular commercial bank failures recently, in the next year would you expect more, fewer, or about the same number of commercial banks to fail?

More to fail	27%
Fewer to fail	23%
About the same number	47%
Not sure	3%

WILL SOME COMMERCIAL BANKS NEED TO BE BAILED OUT?

■ As you know, in the case of the savings and loans, the federal government will have to spend hundreds of billions of dollars to bail them out. Do you feel that the federal government is going to have to bail out some regular commercial banks the same way over the next few years or don't you think that will happen?

Will have to bail out regular commercial banks	57%
Don't think will happen	37%
Not sure	6%

WOULD YOU CHANGE THE FDIC'S $100,000 DEPOSIT GUARANTEE?

■ The federal government now guarantees all bank deposits up to $100,000. Do you think this guarantee should be reduced to the $40,000 limit that it used to be, because some people argue higher limits encourage bankers to make riskier loans; or do you think the $100,000 limit should be kept, or should the guarantee be increased to over $100,000, or should there be no guarantee at all?

Cut back to $40,000	26%
Keep at $100,000	57%
Increase to over $100,000	9%
No guarantee at all	5%
Not sure	3%

WHERE DO YOU THINK THE PROBLEM LOANS LIE?

■ As you know, savings and loans got into real trouble over making bad loans. Are you very worried, somewhat worried, not very worried, or not worried at all at the loans commercial banks have made to...

	Very worried	Somewhat worried	Not very worried	Not at all	Not sure
Speculative business ventures?	23%	46%	15%	13%	3%
Businesses that have issued junk bonds?	42%	35%	10%	9%	4%
Foreign governments?	44%	38%	9%	7%	2%
Speculative real estate ventures	30%	43%	14%	11%	2%

Edited by Christopher Power

Survey of 1,254 adults conducted June 21-26 for BUSINESS WEEK by Louis Harris & Associates Inc. Results should be accurate to within three percentage points.

pared for the Roaring Eighties. "Th banking industry went through a lon period when there wasn't much change and people got used to it," says Fran N. Newman, vice-chairman and chief f nancial officer of BankAmerica Corp. S banks were slow to react when the five year stock market rally helped unleash new generation of innovative financia instruments. Corporate borrowers de serted banks in favor of commercial pa per or junk bonds, and the financing frenzy attracted competition from over seas. Japanese banks now claim 15% o the U. S. banking business.

The competition isn't letting up, ei ther. Last year, the credit units of Gen eral Motors Corp. and Ford Motor Co became the biggest corporate lenders i the U. S., according to SMR Researc Corp., a Budd Lake (N. J.) firm tha tracks the loan market. The bigges lender, GM, ended the year with $23. billion worth of commercial and industri al loans, many of which were made t finance car dealers' inventories. By con trast, Citicorp's oustanding C&I loan stood at $16.3 billion last year.

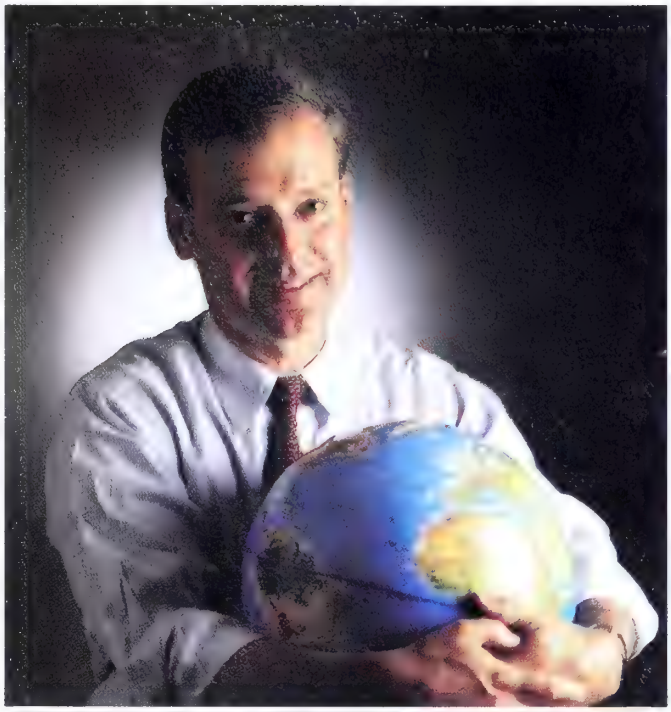
ENDLESS CLAMOR. Consumer banking i a battleground, too. Banks are unwilling to get into a bidding war with mone market funds, so fund assets hav grown almost tenfold in the past decade to $385 billion. And consumers are going elsewhere for services they once go from banks. One example: American Telephone & Telegraph Co. says it ha already signed up more than 1 millio accounts for its new credit card. Tha means a loss of fee income as well a revenue from monthly interest charges

The loss of such core businesses i recent years has forced banks to lool elsewhere to make money. And th booming real estate market seemed ready-made answer to their sagging for tunes. Banks had $765 billion worth o real estate loans on their books at th end of March. That's a 50% increas from 1986. By comparison, total asset at the nation's banks rose 12% in th same period, to $3.2 trillion.

Then came the regional recessions From a national perspective, it wasn't s bad: When farmers were hurting, de fense workers were prospering. But de spite progress toward nationwide bank ing, the country's banks are stil relatively modest regional institutions b the standards of most countries. So defense-industry boom didn't help bank dependent on farm loans. Says Cit corp Chairman John S. Reed: "The whol banking industry is suffering from rolling recession that's running acros the country like a ball bearing."

Now, with real estate, plenty of re gions are taking their turn. The Federa

serve Board estimates that na-
wide vacancy rates in down-
n office buildings, for example,
nd at 16% now, compared with
a decade ago. Real estate mar-
s in the Northeast and South-
t continue to deteriorate, and
mid-Atlantic region, especially
w Jersey, is smarting. The FDIC
started to worry about other
ions, too. High on their list of
ential problems is California,
ere real estate has been surpris-
ly resilient but lower defense
nding and other factors are un-
cutting the economy. Adding to
pressure is the $20 billion worth
real estate seized from insolvent
fts in the last year. The govern-
nt hopes to unload much of it
r the next couple of years.
o forestall the kind of real es-
calamity that felled hundreds
&Ls, regulators began putting a
gnifying glass to bank after
k earlier this year, forcing
te-off after write-off. While
st bankers agree that close scrutiny
n order, many howl that regulators
e unfairly changed the rules mid-
ne. Comptroller of the Currency Rob-
L. Clarke, who regulates federally
rtered banks, disputes such allega-
s. "We have not changed the rules
have had to look at loans differently
ause of a change in the economic en-
nment," he says.



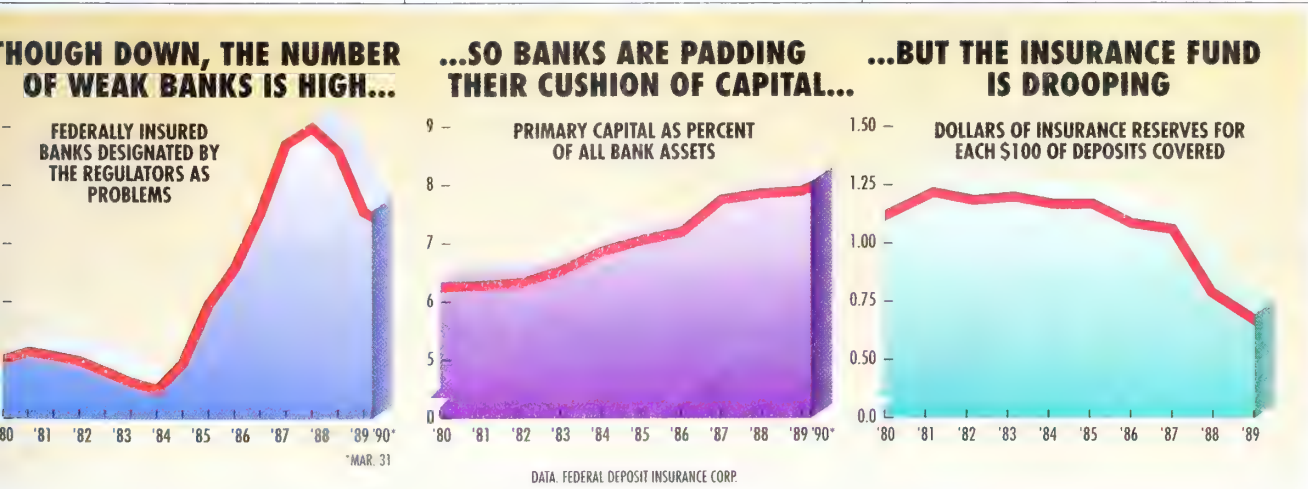
Citicorp's Reed says regulator concern has already helped slow real estate lending. If so, that will drag values down even more

BUST. Some of the LBO loans banks
le in recent years also look different.
ks were big participants in the deal
nia that began in the late 1980s, but
many of those buyouts have fallen
ough. Hundreds of restructured com-
ies have lowered their profit expecta-
s and are finding it tough to meet
densome debt obligations. In June,
kers tentatively agreed to provide
nald Trump with a $65 million loan
to defer payments on other loans to
rescue his highly leveraged empire,
ch includes hotels, condos, and the Trump Shuttle. Manufacturers Hanover Corp. says it will place $150 million of Trump loans on the nonperforming list in the second quarter. Other banks will likely do the same.

Even Third World debt remains a concern, albeit a much smaller one these days. Banks are still on the hook for some $60 billion worth of Third World debt that they have yet to write off. Money-center banks took big hits to their earnings in 1987 and did so again last year to build reserves. On average, big money-center banks raised loan-loss provisions to about 50% of outstanding debt. But that's still far below the levels maintained at foreign banks. British banks, for example, have reserved against almost 80% of their Third World debt. J. P. Morgan & Co. and Bankers Trust Co. are the only money-center banks that have exceeded this mark.

Pressure is building on other big banks to follow suit. Despite last year's debt accord between Mexico and international banks, there has been little progress elsewhere. Brazil, which owes U. S. banks $16.3 billion, halted debt payments last year. Citicorp's Reed expects banks and Brazil to reach an agreement later this year, but he concedes that that's an optimistic guess. Other bankers don't foresee a speedy resolution given the economic-austerity measures adopted by the new government of President Fernando Collor de Mello.

The banks' struggle is costing them dearly in the capital markets. Rating agencies have doomed many banks to paying higher interest rates on their bonds by downgrading bank debt. Since the start of the year, Moody's Investors Service has lowered the quality rating on dozens of banks. Even Citicorp, the nation's largest bank—and therefore perceived as one of the steadiest—has been touched by the wrath of ratings agencies. So have Chase Manhattan,



DATA: FEDERAL DEPOSIT INSURANCE CORP.

PHOTOGRAPH BY STEVE HILL; CHARTS BY LAUREL DAUGHTRY

PORTRAIT OF A CLASSIC BANK COLLAPSE

Few outside Florida paid much attention when First American Bank & Trust ceased to exist last year. Just before Christmas, regulators seized the North Palm Beach bank and declared it insolvent. It was the 205th of 206 U. S. banks to close in 1989, the worst year for bank failures since the Depression. Its $1.1 billion in assets made it the year's third-biggest bank failure.

But statistics tell only part of First American's story. Its problems, created by fast growth and heavy real estate lending, are typical of many banks these days. Moreover, poor management at First American, combined with spotty regulation, exacerbated its problems. "The failure of First American was a classic bank failure," says Ash Williams, Florida's assistant comptroller. "It had its roots in poor management more than anything else."

The seeds of First American's failure were sown in the early 1980s, when strong growth in Florida had developers howling for loans to build condominiums, shopping centers, and office buildings. First American Chairman Roy W. Talmo was eager to oblige. He was well-known in Florida banking circles. In 1961, at age 28, he became president of Curtiss National Bank in Miami Springs. Then, in the late 1970s, he and a group of investors got together and merged two banks to form First American. At first, the bank had a handful of branches in Palm Beach County, but by 1988, it had 41 branches in four other counties and served both Miami and Fort Lauderdale.

Fast growth was a Talmo hallmark. From 1983 to 1985, the bank's earnings rose from $8 million to almost $12 million. Real estate was the engine: Real estate loans stood at $363 million at the end of 1986, up 70% from 1984. In fact, real estate made up half of the bank's loan portfolio.

RUSH JOBS. Talmo also took advantage of Florida's liberal banking laws, which allowed banks to invest up to 20% of their assets in nonbanking businesses. In 1984, First American purchased Associated Mortgage Investors, a real estate investment trust. A year later, it bought Cenvill Development Corp., which specialized in building retirement communities. In 1986, the bank picked up a 49% stake in United American Healthcare Inc., a local health-maintenance organization, after investing $1.5 million.

Still, First American's success masked critical weaknesses. In the rush to grow, loans were often approved without financial statements and personal net-worth histories, former executives say. Alan Tonks, who resigned as vice-chairman in 1983, after just 18 months, also says that loan documentation was woefully inadequate, making it hard to spot problems. He says the bank "was a disaster from an operations standpoint."

Regulation was also spotty. The Federal Deposit Insurance Corp. did not examine the bank from 1982 to 1986, even though Tonks says he warned the regulators that management was lax. The FDIC regulators say they have no record of the warnings, and, in any event, examiners from its Atlanta region were handling hot spots elsewhere, such as Texas. As a result, periodic exams were left up to the state examiners. But despite indications of poor management procedures, local regulators were reluctant to act, because First American was making money. "Usually, when you have management deficiencies, you have declines in capital or losses," says Terrence Straub, director of the Florida comptroller's banking division. About First American, he says: "We didn't have that full picture."

HIGH AND DRY. By 1987, the years of rapid growth were taking their toll. First American's real estate and mortgage operations suffered as the ebbing market left projects high and dry. American Healthcare, like many HMOs, rang up losses as fees failed to cover the costs of providing care. Nonperforming assets—banker talk for bad loans—almost tripled in 1988, to about $120 million.

Talmo, 57, has a different explanation. He says regulators were too harsh in classifying loans. Loan-loss provisions at the end of 1986 were $12 million. Six months later, regulators ordered $25 million in charge-offs, and First American took its first annual loss, $4.3 million in 1987. Talmo also complains that supervision was weak. "We had always been profitable, and we had no reason to believe we had the weakness they thought we had until they examined us," Talmo says. Regulators say this charge underscores First American's poor management.

By spring, 1989, FDIC officials told directors that the institution was in danger of failing and urged them to ask for Talmo's resignation. Talmo, who controlled 43% of the bank's voting shares, resigned in May, 1989, but within weeks, he had enlisted another shareholder, John E. Nicolo. They then replaced all but three of the bank's eight directors with their own candidates. They tried to raise new capital but failed, and the regulators moved in. Three months later, Barnett Bank bought the bank. Of First American's $775 million in assets, Barnett agreed to take only $400 million.

By Gail DeGeorge in Miami

lls Fargo, and Security
ific.
n the stock market, mon-
center banks have seen
ir shares decline 17%
e the start of the year,
le the Standard & Poor's
-stock index gained 1%.
n the stocks of regional
ks, once among Wall
eet's favorites, have fall-
13%. In the current cli-
e, it's nearly impossible
most banks to raise bad-
needed equity capital in
market.
luggish bank stocks bode
for consolidation, which
y be the best way out of
current turmoil. "We
uld have fewer, stronger
itutions," says Robert L.
s, vice-chairman of San
ncisco's Wells Fargo &

Fed Chairman Alan Greenspan sees 'no broad-based squeeze on credit —and lenders are generally not retreating'

"The [industry's] structure is as
ch the problem as anything." But
k takeover activity has stalled, in
t because stock is a preferred way to
for acquisitions. Even regional
ks, which spearheaded consolidation
the 1980s, are licking their wounds.
mi-based Southeast Banking Corp.
tched up seven banks over the past
r years. But these days, its earnings
choked by nonperforming loans—
ounting to $474 million in March. And
bank says that total may go as high
$620 million in the second quarter.

OFFS. Until the merger market picks
cost-cutting will likely be the battle
of banking strategists. Chase Man-
tan plans cutbacks that could elimi-
e some 3,000 jobs, or 7% of its work
ce. And Bankers Trust says it will lay
about 10% of its 750-person corpo-
e-finance staff. More worrisome to
S. executives is the steady withdraw-
of U. S. banks from foreign markets.
ely five years ago, every money-cen-
bank was involved in some signifi-
t banking business abroad. Now,
y Citicorp maintains a broad-based
king operation overseas. And the
lback comes at a time when U. S. cor-
ations are eager to secure financing
help establish themselves in Europe
ad of the Economic Community's in-
ration in 1992.

The most immediate worry among
kers is how tough regulators will
. If examiners are too stringent,
ks could slow new lending and create
redit crunch. Comptroller Clarke says
er loans are being approved because
the realities of the real estate
rket, not because of regulation:
anks need not overreact and become
alyzed by external factors. We're
ing them that they should continue
make loans to good borrowers." So
far, so good, says Fed Chairman Alan Greenspan: "There has been no broad-based squeeze on credit, and lenders are generally not retreating from lending opportunities."

Regulators will have to walk a fine line in the months ahead. The biggest challenge facing banking overseers is persuading banks to adopt more prudent standards to clean up their portfolios—without spooking lenders. "It's a little bit like putting a radar trap up," says Citicorp's Reed. "You want to slow people down from 70 to 55, but you slow them down to 30." Indeed, Reed says the public concern expressed by regulators has already helped slow real estate lending. If so, this is bound to drag real estate values down even more.

With $200 billion in equity capital, it's not likely that the problems facing commercial banks will translate into an S&L-size bailout anytime soon. But there is growing concern that the FDIC, which insures bank accounts up to $100,000, may not have enough cash on hand if a crisis develops. The $13.2 billion insurance fund now has only 70¢ backing every $100 of insured deposits, compared with $1.24 just nine years ago.

Congress has responded to the shortfall. Last year's thrift-bailout law raised bank insurance premiums from 8.3¢ for every $100 of deposits to 12¢ this year and 15¢ next year. The objective is to attain a ratio of $1.25 in the fund for each $100 insured. The American Bankers Assn. believes the FDIC can reach its goal by 1996 or 1997.

Despite these moves, the General Accounting Office, which reviews the FDIC's financial statements, will likely sound a warning for the first time ever in an audit due out this fall. Says Robert

Regulator Clarke: 'Banks need not overreact and become paralyzed . . . they should continue to make loans'

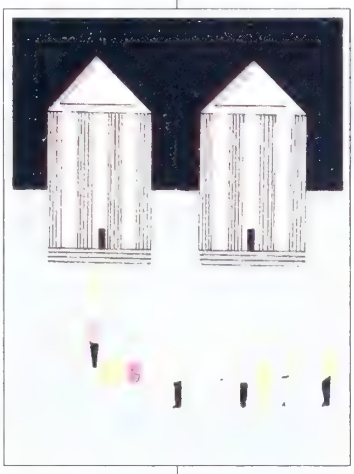
(TOP TO BOTTOM, PHOTOGRAPHS BY KATHERINE AMBERT)

Commentary/by Howard Gleckman and Catherine Yang

THE ROAD TO BANK FAILURE IS PAVED WITH FEDERAL DEPOSIT INSURANCE

Mention federal deposit insurance, and the first image that comes to mind is one of grainy 1930s newsreel film. Knots of shocked and confused men, bundled against the cold in hats and heavy coats, stare blankly at the padlocked doors of their local bank. There is a similar but fresher image of another group, equally bewildered. They got laid off by companies that took in too much junk-bond debt. While employees lost out in deals that made no economic sense, investment bankers and greedy thrifts made millions.

The link between the two scenes isn't obvious, but it is important: The same deposit insurance system that has prevented a repeat of the sad picture of the Great Depression is partly to blame for the junk-bond binge and the S&L debacle of the 1980s. And it goes toward explaining why commercial banks didn't think twice about delving into high-risk lending in recent years.



As with so many government programs gone awry, deposit insurance was born of good intentions. The federal government has an obligation to protect the financial system from collapse. But today, the safety net holds out the promise of riskless capitalism, where Uncle Sam is prepared to prevent any failure, as long as the business involved—from banks to Chrysler Corp.—is big enough.

WILD RISKS. Trouble is, the guarantees are self-defeating. The more protection the government provides, the greater the risks financiers are willing to take. Most bankers, for instance, don't fret about market forces to secure funds. Depositors know they're fully insured, so there's no incentive to select a well-run bank over a poorly managed one. Deposit insurance played a large role in the collapse of the S&L industry. Access to federally guaranteed deposits allowed unscrupulous thrift operators to take risks by paying high rates on savings and then investing in shaky real estate projects. A handful of thrifts with close ties to junk king Michael R. Milken also provided Drexel Burnham Lambert Inc. with a captive market. Says Stanford University economist R. Dan Brumbaugh Jr.: "The single unifying cause of the S&L debacle was deposit insurance."

The downside of deposit insurance first became apparent in 1984, when the government rescued Continental Illinois National Bank & Trust Co. Almost all of Conti's deposits were well in excess of the $100,000 deposit-insurance ceiling. To prevent the immediate collapse of the bank, regulators announced that all accounts would be protected, no matter how big. The bailout cost $1.7 billion. Six years later, the Federal Deposit Insurance Corp. remains the largest equity investor in Continental Bank Corp.

Deposit insurance has outlived its usefulness. Although individual banks have their problems, the commercial banking industry isn't on the brink of collapse. Still, even local or regional problems could be catastrophic. And the $13.2 billion Bank Insurance Fund could not cover the losses of more than a handful of big banks. Under the current system, the only way to protect taxpayers from huge losses would be to saddle banks with onerous regulation.

To break the cycle, the government should reform the system of deposit insurance as some in Washington are proposing. Small depositors could put their money in insured banks whose investments are limited to the safest securities, mainly Treasuries. Others could take whatever risk they feel comfortable with by putting their money in higher-yielding accounts at uninsured institutions. Some depositors may lose money. But in the end, such reform would inject a needed dose of market discipline—and ultimately reduce risk in the nation's banking system.

W. Gramling, the GAO's director of corporate financial audits: "Things have changed somewhat. We have more concerns now." There's already speculation that the GAO will conclude that the BIF's safety target of $1.25 is inadequate to cover the risk in the industry. That could mean that Congress will have to vote to increase premiums once again.

It wouldn't be the only banking issue Congress may tackle next year. The White House will likely present a blueprint for reforming the deposit-insurance system, which is increasingly being blamed for bank problems (box). The thrift-bailout law requires the Treasury Dept. to complete a study of deposit insurance reform by early 1991, though it's expected out by yearend. And Treasury may endorse some rollback of insurance to, say, $100,000 per individual rather than per account. But there's not much appetite to reduce the $100,000 figure, which the Administration believes is politically unwise. In BUSINESS WEEK's poll, a clear majority favored keeping the limit where it is.

MUDSLINGING. Washington may also give banks broader powers to meet growing competition. Few bankers expect to receive the same sweeping financial powers that European banks enjoy, especially at a time when there's sure to be criticism that they're struggling with the businesses they have. But some big banks are hopeful that the Fed will let them underwrite stocks by yearend. That would hardly be a boon to business, given the state of the stock market. But it would signal the demise of the Depression-era Glass-Steagall Act which has prevented banks from becoming big players in securities markets.

These reforms may be derailed if the growing partisan mudslinging on S&Ls continues. An Administration fighting an S&L image problem will scarcely have the political capital to push for a broadening of financial powers for banks. Says one pessimistic banking lobbyist: "There's no leadership anywhere. Congress is terrified of changes in deposit insurance now. People are saying 'You're making us pay for [S&Ls], and now you're taking deposit insurance away from us?' "

But given the urgency of the debt problems confronting the nation's banks, Washington has little choice. The industry is in need of an overhaul. And if there's a lesson to be learned from the S&Ls, it's this: Speedy and forceful action can save billions in the long run.

By John Meehan in New York, with Catherine Yang in Washington, Geoffrey Smith in Boston, Joan O'C. Hamilton in San Francisco, Walecia Konrad in Atlanta, and bureau reports

Invest in America!

The Franklin U.S. Government Securities Fund
A solid investment with a high current return.

urs is a fast-moving, fast-changing world. If you're oking for a truly solid investment, invest in America. ıvest in the Franklin U.S. Government Securities Fund.

oday, the Fund has over $11 billion in assets. Why is so popular?

ecause it's a "plain vanilla" fund currently over 99% vested in Ginnie Maes. Since Ginnie Maes are backed y the Government National Mortgage Association, the ranklin U.S. Government Securities Fund gives you a ombination of advantages hard to find anywhere else:†

- **High degree of credit safety**
- **High current income**
- **Professional management**

he government backing applies to the Ginnie Mae rtificates, and not to shares of the fund.

Call Franklin toll-free today for a free brochure.

1-800-342-FUND Ext.601

Franklin Distributors, Inc.
777 Mariners Island Blvd.
San Mateo, CA 94404-1585

BWK90
601

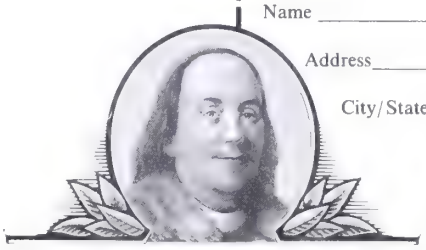
Yes! I would like a free prospectus containing more complete information on the **Franklin U.S. Government Securities Fund,** including charges and expenses. I will read it carefully before I invest or send money.

☐ I am currently a Franklin shareholder.

Name _____

Address _____

City/State/Zip _____



FRANKLIN

Member $42 Billion Franklin Group of Funds

FRANCIS LORENTZ' SCHEME TO GET GROUPE BULL CHARGING

He has the makings of a global giant—but so far, the pieces aren't quite falling into place

For two days last September, Francis Lorentz led his 20 top executives at Groupe Bull across the Vallée Blanche glacier in the French Alps. For the 48-year-old chairman, an alpinist for 30 years, the icy traverse was almost like a stroll through the Tuileries. For some of his fellows at the French computer maker, it was hard going. One portly Italian manager periodically disappeared into crevasses and had to be hauled out by colleagues from Boston and Paris. All in all, though, it was a good chance to build *esprit d'equipe*. "People felt different about each other at the end of the day," Lorentz recalls.

Now, more than ever, Bull needs to pull together. Lorentz, named CEO of the state-controlled company a year ago, is racing against time. He wants to push it from No. 9 in world computer sales today to No. 5 by 1995. That will mean revamping Bull's disparate operations, incompatible product lines, and fragmented strategies. More important, Bull must strengthen its grip at home in the emergent New Europe, to fend off U. S. and Japanese suppliers. If it loses in Europe, observers say, Bull may never be a top global player and may remain little more than a ward of the French state.

'COURAGEOUS.' For now, Lorentz has the benefit of the substantial momentum Bull has gathered lately. After buying into Honeywell's U. S.-based computer business with Japanese partner NEC in 1987, Bull took majority control in late 1988. Then, last December, Lorentz paid $511 million for Zenith Data Systems, a $1.4 billion U. S.-based personal computer maker. Bull's predominantly French base has thus been expanded to a global presence, however fragile. Indeed, 70% of its $6.5 billion in revenues, including Zenith's sales, comes from outside France, including 30% from the U. S. and 33% from the rest of Europe.

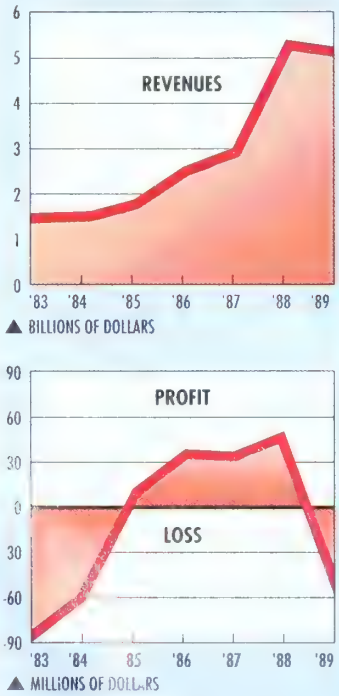
For a company that only a few years ago was viewed mainly as a captive supplier to the French government, that's dramatic progress. "They've been courageous and come very far, very fast," says Vivien Levy-Garboua, director of data processing at Banque National de Paris, a major customer.

But courage alone won't do it. Bull must distinguish itself from much larger companies that are pursuing essentially the same strategies. Bull, for example, is pushing "open systems" computing based on AT&T's Unix software. But so are Unisys, Hewlett-Packard, and Olivetti, to name a few. Bull also wants to beef up its library of industry-specific software, such as for manufacturing, and its ability to design networks for customers. But it is coming from far behind rivals such as IBM and Digital Equipment. "So far, we've bet Bull will improve, and we've won," says customer Jean-Jacques Renault, director of data processing for RATP, Paris' mass-transit system. "Now, Bull must become one of the world's main players, and that will be harder."

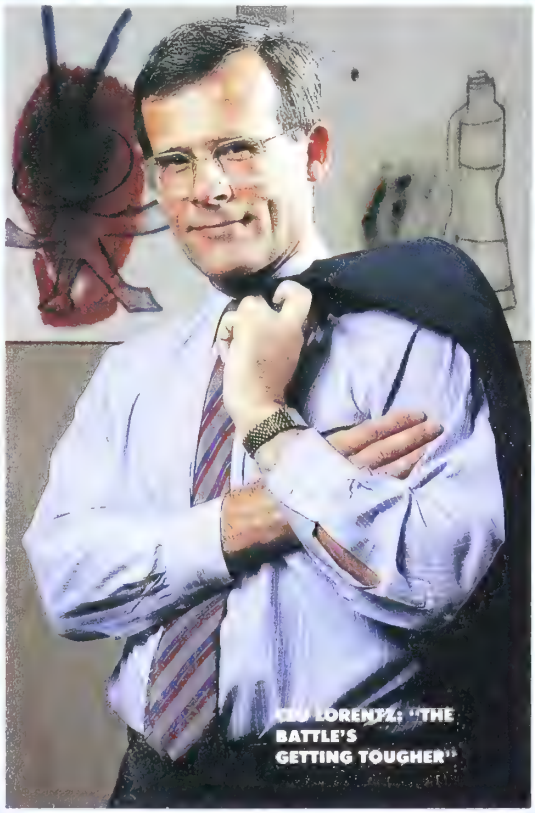
TWO-FRONT BATTLE. Bull's big advantage is a patient and generous French government, which holds 93% of its stock. The Mitterrand regime, determined to back a national computer champion, has pumped more than $1 billion in capital into Bull since 1983. That encouraged French banks to help finance the Honeywell and Zenith deals. Government backing may help Bull survive at a time when rivals such as Philips, Unisys, and Olivetti are struggling.

Still, Lorentz is having to fight on two fronts at once. In the U. S., he has to rebuild both Zenith Data and the former Honeywell operations, now called Bull HN. Zenith Data looks like a pa

GROUPE BULL'S SPOTTY RECORD



DATA: COMPANY REPORTS



CEO LORENTZ: "THE BATTLE'S GETTING TOUGHER"

WE'RE NOT JUST TALK.

DBS
Digital Business System

We're Panasonic.

We're digital business telephone systems.

We're the keys to your success.

We're total communication systems. Innovative. Flexible. Expandable. Custom-tailored to fit your needs and save you money. We're made here, in the USA. With high-quality equipment. And a service organization, specially trained to solve your problems. For the authorized Panasonic dealer nearest you, call 1-201-392-6885. You'll get a lot more than just talk.

Panasonic®

BREITLING
1884

INSTRUMENTS
FOR PROFESSIONALS

CHRONOMAT,
self-winding chronograph
18 kt. gold, steel and 18 kt. gold, steel
Leather strap or metal bracelet

WORLD
EQUESTRIAN
GAMES
STOCKHOLM
1990

BREITLING

BREITLING USA INC.
TWO STAMFORD LANDING, SUITE 165,
STAMFORD, CT 06902
TEL.: 203 327 14 11
FAX 203 327 25 37

ticularly tough turnaround. Its former parent, Zenith Electronics, skimped on investments in new technology. Last year, Zenith Data lost $70 million, and its share of the world laptop market dropped from 28% to 14%, according to International Data Corp. It also has lost some big sales to the federal government, once its best market.

Back in Europe, the Americans are pouring on the pressure. IBM, Digital Equipment, and Hewlett-Packard are doing far better overseas than at home, and they're all jumping on a unified Western Europe and the opening of Eastern Europe as once-in-a-lifetime opportunities. Now, industry sources say, discounts are 30% to 50% deeper than they were just two years ago. "The battle's getting tougher day after day," Lorentz concedes. After showing profits from 1984 to 1988, the company fell back into the red in 1989, by $41.8 million on a 4% rise in sales. In dollar terms, sales actually dipped slightly from 1988 (chart, page 154).

Lorentz is perhaps an unlikely computer executive, having run a large water company before being tapped by Chairman Jacques Stern in 1982 as operations chief. Even with annual government subsidies stretching back to Charles de Gaulle's regime, Bull was rarely profitable; from 1981 to 1984 alone, it lost $450 million. Lorentz, the son of an Alsatian textile-equipment salesman, overhauled budgeting, improved dismal quality and morale, and struck deals to resell computers from NEC and Convergent Technologies Inc., which was later bought by Unisys.

'OUNCE OF GOODNESS.' Now, as chairman, he's building fast on that record. With Zenith, he has doubled Bull's total U. S. sales and boosted its share of the European PC market to 5%, making it No. 5. Last January, he reorganized Bull from top to bottom. Bull's many engineering operations—in Paris, Milan, Phoenix, and Billerica, Mass.—have worked on overlapping product lines, which has confused customers. But now, with Paris calling all shots, Bull hopes by 1991 to save at least 10% a year on its $600 million R&D spending. "It's critical to squeeze the last ounce of goodness out of our engineering investment," says Ward D. MacKenzie, vice-president in charge of product management.

After a slow start with Bull's own PCs, Lorentz is sparing no expense to make Zenith Data a hit. He quadrupled its European promotion budget, to $40 million. He's lining up the new breed of pan-European PC dealer networks by offering them better discounts and lots of leads from Bull's 4,000-person salesforce. Joseph H. Solari, Zenith Data's European chief, hopes that will triple his sales, to $1.5 billion, by 1992. Before "we were worried about surviving," Solari says, but "Bull has a strategy and is ready to fund it."

The solution is not so simple for the old Honeywell-Bull minicomputer and mainframe lines. Sales of those proprietary systems will be flat, at best, because little new software is being written for them. "We've challenged Bull to come up with a reason to keep our mainframe," says Max Wepasnick, who runs computing at the National Rural Electric Cooperative Assn. in Washington, D. C.

Bull's response is to emphasize Unix minicomputers designed to work closely with its own and IBM's mainframes. That could win new business from IBM's customers while reassuring its own not to leave. Open systems account for only 10% of Bull's sales. But there's some hope in recent orders worth $115 million for Unix systems from the British and Polish tax agencies.

Crucial to Bull's turning the corner is Roland D. Pampel, a former CEO of Apollo Computer. Having joined Bull HN

> After a slow start with Bull's own PCs, Lorentz is sparing no expense to make Zenith Data a hit

two years ago as president and CEO, he says his goal is to focus the company on solving customers' problems, not just selling computers. Bull last year got only 5% of its revenues from consulting on software and networks—less than half that of its major competitors. To help, Bull hopes to buy Honeywell Federal Systems Inc., a $293 million "systems integration" business. And to raise Bull's profile in the U. S., Pampel is spending as much as $36 million on a "Know Bull" ad campaign. "By the end of 1990," he promises, "a lot of our programs will begin to take off."

It all sounds fine on paper. But Bull has had problems executing its strategies. Its latest Unix machines, for instance, were missing the software needed to connect to its mainframes. Quips a Bull engineer in Paris: "The guys up at Malakoff [Avenue headquarters] have a strategy all figured out. But they haven't told us about it yet." Until Lorentz can get his troops pulling together in the market, Bull faces a long climb to the top.

By Jonathan B. Levine in Paris and Gary McWilliams in Billerica, Mass.

The 90s: Business Gateway to the Pacific Century

Business Week announces a special advertising section on the Asia Pacific Region.

Issue Date: November 12, 1990
Closing Date: October 1, 1990
Editions: California, West, Asia and China
Circulation: 295,000

The Pacific Rim represents unsurpassed opportunity for growth. The region has achieved substantial economic growth almost without precedent.

This November, Business Week will publish a special advertising section showing how your company can benefit from the extraordinary opportunities offered by this dynamic business region.

Designed to help you target the decision makers involved in Pacific Rim trade and investment, the section will reach nearly 300,000 Business Week subscribers in California, the West, Asia, Australia and China.

Be a part of "The 90s: Business Gateway to the Pacific Century." Don't miss this special opportunity to advertise your products and services to Pacific Rim business leaders.

For more information, contact:

New York: Barbara Daly 212-512-6664
•
San Francisco: Connie Bennett 415-954-9786
•
Hong Kong: Steve Marcopoto 8682010
•
Sydney: David Strike 922-2977
•
Melbourne: Ian MacDonald 820-2688
•
Tokyo: Paul Ishii 581-9811

BusinessWeek
THERE IS NO SECOND PLACE

COMPUTERS

APPLE'S NEW MOTTO: JUST WAIT TILL NEXT YEAR

1990 is disappointing, but with a new COO comes a new strategy

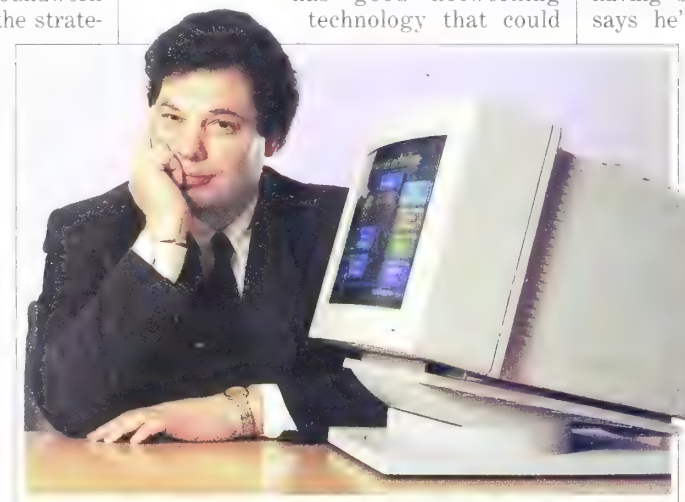
For Apple Computer Inc., 1990 has not been a vintage year. Just when customers clamored for inexpensive computers, Apple had none. Revenue growth plunged from 30% last year to an estimated 8% for fiscal 1990, ending Sept. 30. Nobody is anticipating much change until cheaper Macintoshes make their expected appearance this fall. But Apple has suddenly started making changes that lay groundwork for a stronger 1991 and show the strategic handiwork of new Chief Operating Officer Michael Spindler. "Spindler is making his moves," says analyst Peter Rogers at Robertson, Stephens & Co.

In January, Chief Executive John Sculley tapped German-born Spindler, the engine behind Apple's robust European sales, to help put the company back on track. Spindler played his first public hand on June 26, picking Robert Puette to be president of Apple USA, the troubled domestic sales division whose chief, Allan Z. Loren, was forced out. Puette had headed Hewlett-Packard Co.'s personal computer business.

ABOUT-FACE. Just three days after signing Puette, Spindler made his second move, canceling the spin-off of Claris Corp. that had been planned ever since Apple formed the software subsidiary in 1987. The about-face indicates how intense Apple's competition has become. Microsoft Corp.'s Windows 3 is now giving IBM PCs and clones many of the graphic features that once made Apple's Macintosh unique.

Windows has already attracted some independent developers of Mac software. Analysts say that an independent Claris would likely follow suit. "They're scared that they're losing the war to control the developers," says Steven L. Ossad at Montgomery Securities in San Francisco.

Apple, however, also has a pressing strategic need for more in-house software savvy. It wants Claris' staff to work alongside other Apple programmers to give the Macintosh the software it needs to play a major role in computer networks. That may include programs such as electronic mail systems for networks of Macs and IBM-compatible PCs. Sources close to Claris say that the unit has good networking technology that could become an add-on for the Mac's basic system software.



SPINDLER: KEEPING HIS SOFTWARE BRAIN TRUST IN THE FAMILY

As big corporate customers begin to string extensive networks, Spindler wants to make sure that the Mac can run the large networks of Macs and PCs, not just small, Mac-only setups. "There are things we would do to enable Apple's operating system to become more widely accepted," says Claris President William V. Campbell. That made keeping Claris important to Spindler. "Mike has been very involved in this," says Randy Battat, Apple's vice-president for product marketing. "He has a very clear view of what this should be."

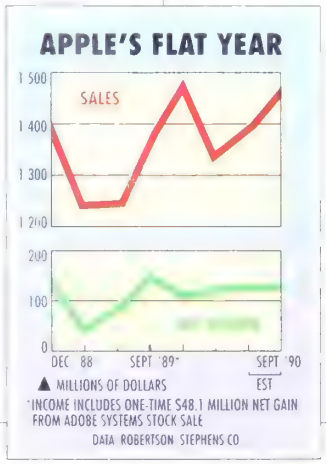
Despite the strategic benefits, Apple risks rebellion from the independent software developers whose products are vital to the Mac. Before Claris, developers complained that Apple had an unfair marketing advantage as long as its logo appeared on programs. The Claris label and promises of a spin-off assuaged their fears. The announcement that Claris would stay in-house provoked renewed suspicion, despite promises by Apple that it will work closely with developers to make sure they and Claris are on an equal footing. "That's a fairy tale," says Mac developer Heidi Roizen, president of T/Maker Co. in Mountain View, Calif.

DASHED DREAMS. The other short-term problem is soothing the Claris staffers who had expected to grow rich from an initial public stock offering. The paperwork for the IPO was nearly complete when Spindler and Sculley nixed it. Campbell, who quit the top sales job at Apple to head up Claris, admits to having been floored at first, but now says he'll stay on for the long haul. "I've signed up for this. The strategy is correct." Company officials say that the Claris staff will be paid at least what their 20% share of the company would have fetched in an IPO.

Spindler seems to be bringing Apple's strategy into clearer focus after it had drifted for a year or more. He has new executives, a better lid on costs, and the start of new marketing plans. And even though a slow U.S. market will slash revenue growth—despite substantial gains overseas—analysts predict that Apple will see earnings boosted by between 10% and 18%, to as much as $535 million, for the year ending Sept. 30.

The new COO's real test will be putting it all together next year. Rogers says 1991 will be "a make-or-break year for Apple." New models—especially the low-end Macintoshes that are expected to sell for as little as $1,000—are seen as a long-overdue method of boosting Apple's market share from 13%. Puette, 48, who built Hewlett-Packard's PC business to about $750 million, says he's "going to get more aggressive from a marketing standpoint." For instance, he will make more direct comparisons between the Mac and the PC. Wall Street predicts that if all goes well, revenue could surge 15% in 1991, to $6.6 billion. That would still be slow by the company's historical standards, but it would have a more agreeable bouquet than Apple '90.

By Barbara Buell in Cupertino, Calif.



Some people find it impossible to retire on a nine-figure income.

There was a time when Social Security and retirement security were one and the same. But no longer. Inflation and the budget squeeze have made such assurance a thing of the distant past.

The good news is there's help, and plenty of it, in the form of the nation's thousands of Chartered Life Underwriters and Chartered Financial Consultants.

A CLU or ChFC is a highly trained financial expert who has completed years of rigorous study at the nation's oldest accredited college in the financial services field, The American College. The letters "CLU" or "ChFC" beside your insurance agent or financial advisor's name mean you have found a thoroughly qualified professional to help plan your financial future.

So while it may be possible to get by on Social Security alone, you won't have to.

American Society of CLU & ChFC

A National Organization of Insurance and Financial Service Professionals
270 Bryn Mawr Avenue, Bryn Mawr, PA 19010 (215) 526-2500

For a free copy of "The Consumers' Guide to Insurance and Financial Services," simply write to us.

RESEARCH

THE NEW WORLDS LASERS ARE CONQUERING

With the beams, scientists can unravel the inner workings of cells

At the Kyoto Institute of Technology in western Japan, Professor Hiroshi Masuhara trains powerful lasers on molecules, fashioning microscopic "factories" designed to produce chemicals that don't exist in nature. In Kawasaki, researchers at NEC Corp.'s optoelectronics lab deploy lasers to correct faulty circuit lines on computer chips. And at the National Institute of Standards & Technology (NIST) in Gaithersburg, Md., physicists trap atoms in a crossfire of six laser beams, studying them in "super-slow" states never before produced.

All in a day's work for the pioneers of laser chemistry—an emerging engineering discipline that straddles physics, chemistry, and molecular biology. Scattered among America's top research labs and Japan's leading electronics companies, laser chemists are employing such exotic gambits as "laser traps" and "optical tweezers" to grab, slow, and manipulate bits of molecules or living cells. In the process, they are discovering better techniques for such diverse tasks as etching circuits on silicon and unraveling the inner workings of cells. "Chemistry was once a sober affair," says Kyoto Institute's Masuhara, who heads a prestigious government laser-chemistry project. "The marriage with lasers has infused real excitement."

For decades, engineers have exploited lasers as heat sources and catalysts to trigger chemical reactions. But only recently have they succeeded in controlling and monitoring those reactions at the molecular level with the precision needed for industrial applications.

The basis of their success is straightforward. Unlike other light sources, lasers can be fine-tuned to resonate at specific frequencies, enabling scientists to cleave atomic bonds vibrating at the same pitch. When particles are hit with a laser beam matching their resonance frequency, light scatters into a pattern that can be measured by optical detectors.

These properties make lasers ideal for molecular manipulations. Masuhara has pioneered the use of lasers to examine a basic problem in chemistry: the peculiar behavior of particles at the interface of two surfaces, such as water and air. He plucks off individual particles with one laser beam, moving the specks into position so a second beam can irradiate them. The photochemist studies the resulting rainbow-like spectrum for clues that might spur his efforts to hand-tailor new chemicals.

Masuhara's studies, like many in laser chemistry, are still unfolding in the lab. A handful of commercial applications, however, are hitting the market. Most relate to microfabrication, where Japan is in the forefront. At NEC, senior researcher Shunji Kishida uses lasers to improve semiconductor production. To squeeze more circuits onto a chip, engineers stack transistors in multiple layers. But the added complexity increases design errors. Until last year, the flawed chips were simply discarded. Then, Kishida's team developed lasers able to repair the interconnects between transistors with near-perfect precision. "Lasers let you deposit a film anywhere you like and etch it right on the spot," he says.

SPUTTERING. Similar approaches are applied to ceramic superconductors—compounds that lose electrical resistance when cooled by liquid nitrogen. To create sensors and other devices that exploit the materials' special properties, scientists must lay down a thin layer of the compound on a substrate. Initially, such films were deposited, or "sputtered," with electron beams. The beams, however, often rendered films useless by altering the material's chemical composition.

To skirt this problem, Sumitomo Electric Industries Ltd. last year turned to excimer lasers, which operate in the ultraviolet range of the spectrum. The result was a thin film that could carry an electric current of 8 million amperes per square centimeter—a world record. Americans developed laser sputtering, says Sumitomo's chief researcher in ceramic superconductors, Satoshi Takano. But, he notes, "it has caught on quickly among thin-film researchers in West Germany and Japan."

Indeed, Americans pioneered most laser chemistry techniques in the 1970s. And they continue to push the technol-

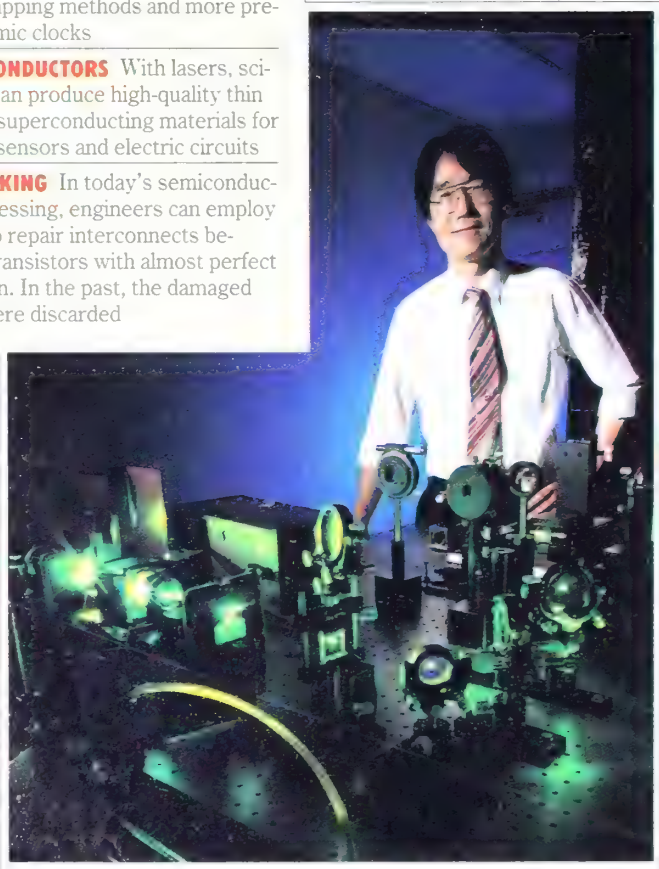
BRIGHT HOPES FOR LASER CHEMISTRY

Lasers promise near-perfect control over certain chemical reactions. Scientists are harnessing this light energy for a variety of applications:

LASER TRAPPING Using laser beams as "tweezers," researchers can seize and manipulate bits of molecules or living cells. Payoffs include better gene-mapping methods and more precise atomic clocks

SUPERCONDUCTORS With lasers, scientists can produce high-quality thin films of superconducting materials for making sensors and electric circuits

CHIPMAKING In today's semiconductor processing, engineers can employ lasers to repair interconnects between transistors with almost perfect precision. In the past, the damaged chips were discarded



MASUHARA USES LASERS TO BUILD PARTICLES NOT FOUND IN NATURE

SUPER KING AIR B200. TOTAL TIME: 9,500,000 HOURS AND COUNTING.

As the new decade began, CEO in Illinois took delivery of a per King Air B200, the 1,345th the long line of Model 200s. e King Air is the world's most perienced turboprop. It has been osen more than two to one over y other single line of corporate rplanes—turboprop or jet.

The King Air heritage is rich d tangible:

Reliability: proved by the three odel 200s on the Norfolk Island to ustralia run. They've each logged ore than 26,500 hours...and are ll counting.

Toughness: Ask the oil company Oklahoma, which has been putting its King Air down on unpaved strips for 11 years.

Readiness: Navy pilots train in King Airs, which make thousands of landings a year and still meet the Navy's stringent readiness demands. The Swedish Air Ambulance Service flies six King Airs all over Sweden and into the Soviet Union, in all kinds of weather and into all kinds of airstrips.

Comfort: The King Air cabin set the standard for efficient utilization of space. The seats are restful by design, the furnishings tasteful and elegant. And to the specs of the owner. (A U.S. President had the Presidential Seal embroidered on the back of his seat.)

The B200 today carries with it all this reliability, toughness, readiness, comfort...and more. Because each year Beechcraft engineers and designers incorporate the ideas that stem from the millions of hours logged by King Airs.

For more information, just give a call. We'll put together a package, for you—brochures, spec sheets, tax information, financing alternatives, etc. We'll even fax it, if you prefer. 1-800-835-7767 Ext. 7162 (in the U.S. and Canada).

Beechcraft. Where new ideas take flight.

Beechcraft
A **Raytheon** Company

Suite Deal Manila
A taste of the best

Suite living could not be any sweeter than our Suite Deal Manila package. You stay in a suite at Manila's most elegant and historic hotel at the attractive rate of US$190++.

And there is no holding back on amenities and excellent service: One-bedroom suite accommodations, complimentary Continental breakfast for 2 persons, airport transfers (provided flight details are advised), late check-out on departure date till 6 p.m. at no extra charge, welcome drink and fruit basket, daily international and local newspapers.

When planning a visit, ask for our Suite Deal Manila. It's definitely good value you should not miss.

Valid until 31 Dec. '90. Bookings must be identified and some restrictions apply. Advance reservations required.
++Subject to 10% service charge and 13.7% government tax.
**Maximum 2 adults and 2 children 12 years old and below sharing room.*

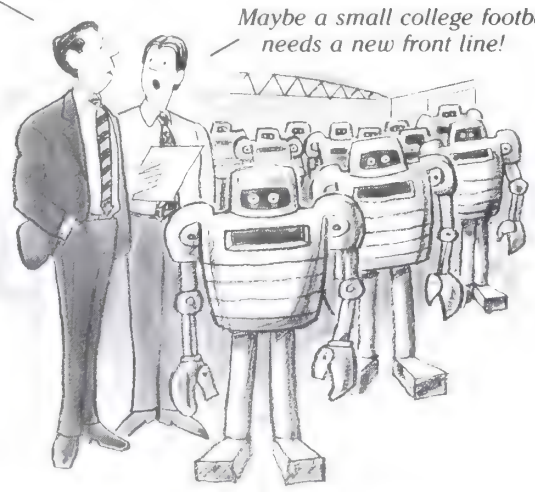
There are perhaps a dozen incredible places you must see in the Orient. One of them is a hotel.

The Manila Hotel
Philippines

Rizal Park (P.O. Box 307), Manila, Philippines Telex: 40537 MHOTEL PM.
Telephone: (632) 47-0011. Fax: (632) 47-1124 or 48-2430.
Or contact: R.F. Warner Inc. Omaha, NE; John Tetley Co. Los Angeles, Utell International-Sahara, KLM/Golden Tulip Intl B.V., Philippine Airlines Sales & Reservations Worldwide

What are we going to do with your extra robots, Fenton?

Maybe a small college football team needs a new front line!



CALL EAL IF YOUR CORPORATION HAS MATERIAL AVAILABLE FOR DONATION.

EAL - Will take your donated material and use it to generate scholarships for needy, deserving students. Donations could mean an above cost tax deduction - IRS Reg.170(e)(3). Scholarships are given in the donating corporation's name.

EA
Educational Assistance Ltd.
P.O. BOX 3021 • GLEN ELLYN, ILLINOIS 60138

For More Details
Call 708-690-0010
Peter Roskam
Executive Director

ogy. Twenty years ago, AT&T Bell Laboratories researcher Arthur Ashkin found a way to capture particles in laser "traps." Today, with biologist Manfred Schliwa and others at the University of California at Berkeley, Ashkin is analyzing how energy factories called mitochondria are propelled within living cells. "That's an important question," says Ashkin, "because the same molecules that drive mitochondria are at the basis of many important cell mechanisms."

Building on Ashkin's work, Stanford University researchers plan to bond tiny polystyrene spheres onto DNA molecules. Armed with laser "tweezers," they should be able to pull apart the spiral strands. That could help in tracking down specific pieces of the genetic code.

At NIST, scientists tune lasers in such a way that they can trap and slow atoms, thereby cooling them to temperatures just 25 millionths of a degree above absolute zero. "At temperatures so cold, atoms become big, fuzzy things that exhibit strange properties," says NIST physicist Christoph I. Westbrook. This ability to manipulate atoms, he says, might allow new laser experiments that complement those done in much more costly high-energy accelerators.

Nor have Americans ignored commercial possibilities. In 1979, Daniel Ehrlich, a scientist at Massachusetts Institute of Technology's Lincoln Laboratory, received a patent for a technique that uses laser light to split metal atoms from a gas and deposit them in ultrathin layers on a substrate. A number of companies use the technique in chipmaking. And Micrion Corp. of Peabody, Mass., employs the technology in equipment that corrects faulty circuits in the flat-panel displays used in laptop computers.

ATOMIC CLOCKS. Despite such advances, not everyone is sold on laser chemistry. "It's not been successful for chemical synthesis," says Harvard University chemistry professor William Klemperer. He notes that many scientists have tried unsuccessfully to use lasers to "snip and sew" atoms into new materials, and he advises more traditional approaches to synthesizing new compounds.

Still, many scientists predict that lasers, offering precise control over matter, will lead to such advances as more accurate atomic clocks and better drug-delivery systems. But the real thrill, say laser chemists, is to observe and control molecular events once hidden inside the laboratory beaker. "New techniques are just half of the story," says Masuhara. "The other half is understanding, which is where the real science begins."

By Neil Gross in Tokyo, with John Carey in Washington, Gary McWilliams in Boston, and Richard Brandt in San Francisco

The average secretary spends 118 hours a year at the copier.*

Barbara Champney
Author of "A Ten Minute Guide To A More Productive Office"

Making a secretary's workday the most productive it can be isn't easy. Just think about how many nuisances can cause a secretary to fall behind. For instance, inefficient office equipment such as a copier. In fact, a study by an independent research organization shows that the average secretary spends 118 hours a year at the copier. Imagine the increase in productivity if that time could be reduced by as little as 20%. The right copier can give a secretary a lot more time to do other things.

To determine what copier is best for your office it's important to ask the right questions. How many copies a month do you plan to make? Also, will you be making copies of two-sided documents? What about enlarging or reducing? It's also important to think about an automatic collating feature. It will save a substantial amount of time when copying multiple-page documents.

There are copiers in every category that will speed up certain jobs and turn previously wasted hours into productive time.

So before making any decision on what to purchase, it's imperative to plan for it. Because the right piece of equipment is a true business asset.

One way to make your office more productive is to employ the Minolta EP 8600 copier.

Features such as these demonstrate why it's so efficient:

- 50,000 copies can be produced before adding toner.
- 4,000 sheets of paper can be loaded when large capacity trays are used
- 60 copies per minute for increased productivity.
- LED help screen displays 49 messages that solve virtually all copying problems.
- Automatic duplexing makes two-sided copies from two-sided originals or two originals.
- Zoom lens for 61%–164% reductions and enlargements.
- Dual original feed produces booklets from originals copied side by side.
- Intelligent Commander allows remote programming.

For more information on the EP 8600 and a free copy of Barbara Champney's "A Ten Minute Guide To A More Productive Office," call **1-800-USA-DIAL, Ext. 777.**

COPIERS
ONLY FROM THE MIND OF MINOLTA

MINOLTA

*Survey Solutions, Inc © 1990 Minolta Corporation

THE UNIVERSAL LANG

AGE OF INNOVATION.

At Daewoo, we bend over backwards to find new ways of looking at old problems. It's part of an innovative spirit that is shared by each of the almost 100,000 people that make up Daewoo. And that same spirit has helped make Daewoo, in little more than two decades, a universal name in fields as diverse as trading and shipbuilding, aeronautics and electronics, construction and telecommunications, finance and heavy industry. To find out how the innovative spirit behind Daewoo's growth can spur your own, call Daewoo.

Daewoo International (America) Corp. (212) 909-8200.

DAEWOO

THE UNIVERSAL LANGUAGE OF QUALITY.

BUFFALO

Hot Spot For Business

Buffalo is warming up to a new business boom!

Make Buffalo your business. Speak to readers all over the globe who will respond to Buffalo's surprising sizzle. Make plans to appear in the pages of the Special Advertising Section *Buffalo: The Hot Spot for Business.*

For more information, please call:
D. David Johnson, II, Account Manager
at 203-968-7141
or
Barbara J. Daly, Marketing Manager
at 212-512-6664

BusinessWeek
There is no second place.

evelopments to Watch

D BY NAOMI FREUNDLICH

LL THESE TOY SOLDIERS TOMORROW'S TROOPS?

At movie theaters, this is the summer of *RoboCop 2*. But at U.S. military bases, the hot attraction might be called Robotrooper 1. It's a remote-controlled robotic soldier the Pentagon calls the Tactical Multipurpose Automated Platform (TMAP).

Developed by Martin Marietta Corp. and Grumman Corp. under the direction of Sandia National Laboratories, the robo-soldiers, built on a golf-cart-sized all-terrain vehicle base, weigh in at 760 pounds and are crowned with an of video cameras and acoustic monitors. A fiber-optic, backed up by a radio link, connects them to a command up to two miles away. There, real soldiers control the les via a joystick while watching color monitors and lis- g with headsets. Capable of a maximum 10 mph, the s will serve mainly as scouts, but later generations will with antitank weapons. If funding continues, the troop- ay be ready for field duty within the decade.

AL MINERS MAY GET IRE ALARM THEY CAN TRUST

se fire alarms in underground coal mines are so common at miners sometimes ignore the warnings—a deadly mis- if there's a real blaze. That's because standard alarm ms use a series of sensors that measure carbon monoxide every few thousand feet in the mine. A jump in the level ignal a fire. But mining equipment using diesel engines increases carbon monoxide in the air, triggering the s.

w, the Carnegie Mellon Research Institute has developed ntelligent" system that can tell the difference between n monoxide from diesel exhaust and a smoldering fire. omputerized system has sensors that measure the fluctu- levels of both carbon monoxide and nitrogen oxide given y diesel engines. The alarm goes off when the ratio een the two gases tips too far in favor of monoxide. The m can make that judgment within three minutes. A proto- is being tested in a Utah mine, and researchers predict existing alarm systems can be retrofitted at a cost of less $85,000.

CANNER THAT'S SIER ON THE INNARDS

mputer tomography, or CT scanning, allows doctors to ake three-dimensional images of the inside of the body. that, X rays are fired through the body from different s and are either absorbed by tissue or picked up by tors. A computer uses these data to reconstruct an im- But X rays can damage tissue, and doctors would rather ower-energy forms of radiation, such as infrared light. problem is, infrared light doesn't pass straight through e, as X rays do; the energy that isn't absorbed scatters. w, a Berkeley (Calif.) company says it has found a way to create a "diffused tomography" machine. Researchers at Singer Imaging Inc. discovered that infrared scatters in predictable patterns, and they have patented a mathematical technique that can construct an image from the diffused radiation. A Cray supercomputer is currently needed just to determine the shapes of carbon rods embedded in wax. But founder Jerome R. Singer envisions splitting the computations up among different processors—say, using 100 detectors, each with a microprocessor to interpret its data. Ultimately, he says, the technique might also be used to improve ultrasound images or the accuracy of sonar used to detect oil deposits. The next step: find a corporate partner to help develop commercial products.

ANOTHER TIGER WANTS TO SHARPEN ITS CLAWS ON SEMICONDUCTORS

South Korea is hardly the only Southeast Asian nation getting more aggressive in chips. Taiwan is also on the move. According to Dataquest Inc., Taiwan-based companies are investing $900 million this year in semiconductor production. That's up 146% from 1989—and four times the investment level of 1988.

If all of the new chip plants funded over the past two years come on stream on schedule, Taiwan will double its capacity for making integrated circuits by the end of next year, with more to come in 1992. Eight new wafer-fabrication plants, known as fabs, are in the works. Currently, the country has just seven.

Until now, Taiwan's chip industry has been dominated by so-called design houses that create customized chips, then farm out the actual production. The move to integrate vertically is risky, notes Dataquest. But the timing seems good. The semiconductor business is just now emerging from its latest period of slack demand and should spurt ahead again in 1991.

NOW IN LIVING COLOR: THE VIDEOPHONE

Three years ago, customers snubbed the first generation of video phones, which for $350 produced fuzzy, monochrome still images. Now, a consortium of Japanese companies thinks it can do better. Backed by Japan's Posts & Telecommunications Ministry, Graphics Communication Technologies Ltd. has produced a set of chips for color videophones to be used with high-capacity fiber-optic phone networks that are being installed in the U.S., Europe, and Asia.

To mesh with the new phone systems, images will have to be digitized. Each color picture frame contains more than 100,000 dots, or pixels, and at least 10 such frames must be flashed on the screen every second to produce a moving picture. Add sound, and each second of communication becomes an information processing nightmare.

Using circuitry that compresses and transmits color images, engineers reduced the number of chips required from 800 to just 12. GCT claims its chip set is the first to meet international standards for digital color videophones. And it says the cost and size of the phones will be "a fraction" of current refrigerator-sized prototypes, which cost about $65,000.

FOR AD RATES
AND INFORMATION
PHONE:
(312) 337-3090
OR WRITE:

BUSINESS WEEK MARKET PLACE

BUSINESS WEEK
MARKET-PLACE
100 EAST OHIO STREET
SUITE 632
CHICAGO, IL 60611

Computers/Office Equipment

$179 per mo

RENTALS

Also Available:

- IBM PS/2
- Compaq
- Macintosh
- Laser Printers
- Laptops
- Portables

And a host of other peripherals

Next Day Delivery Anywhere in the U.S.A.

Call Toll-Free
800-765-4727

PC Computer Rental

MARYMAC INDUSTRIES INC

Our 14th year of DISCOUNTS
Tandy® Computers
Radio Shack® Products
Toll Free 800-231-3680
22511 Katy Fwy. Katy (Houston) TX 77450
1-713-392-0747 Fax (713) 574-4567

LASER FACTORY

Toner Cartridge Reconditioning
Nationwide Free Pick-Up & Delivery
Low Prices On NEW Cartridges Too.
We Purchase Used Toner Cartridges
$10 Off 1st Order (With Ad)
1157 Chess Dr, Foster City CA 94404
800/359-5777 or 415/571-9442

Business Opportunities

SELL YOUR PROPERTY IN JAPAN

Brokers/Owners—list in Japanese MLS-type service. Reach 1000's of Brokers/Investors/Corporations in Japan. Free translation/typesetting. Also display ads, brokerage/agency services, Japanese market consulting. Call for details **1-800-USA-2111**

Hori & Bunker
290 Centre St
Newton, MA 02158

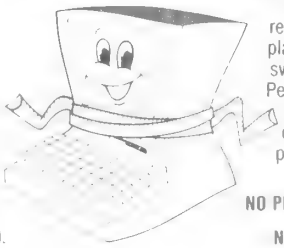
INCORPORATE IN DELAWARE
$225 for Complete Incorporation
WHITTINGTON & AULGUR, Law Offices. For free information Write P.O. Box 5550, Wilm., DE 19808 or Call 1-800-441-9459

FIRST TIME EVER
Dealerships Offered to the Public
(Many available)

LIMITED OFFER

GROUND FLOOR

Comp-U-Diet



WANTED:
Dealers throughout the U.S. to help us service over 150 million overweight Americans who need our affordable plan

If accepted, your cost is only $485.00
Your profit potential
$1200 a week & up.

Comp-U-Diet is a revolutionary new diet plan of the 90's that is sweeping the country. People select the foods they like and our computers create a personalized plan for your clients

NO PILLS—NO POWDERS

NOT MULTI-LEVEL

There Is:
- no selling or customer contact
- no product to warehouse
- no billing or collecting
- NO EXPERIENCE necessary (we provide complete training and support, and do all of your computer processing!)

CALL NOW FOR **FREE** MAIL-OUT BOOKLET:
1-800-942-9900 ext. 243
Mon-Fri 9 am-5 pm Eastern Time

UNITED AMERICAN MARKETING, INC.
27280 Haggerty Rd., C-14

Computers/Office Equipment

FREE PRINTER
WITH EVERY TALL 386 SYSTEM

Buy the MODEL AMERICAN ™ TALL™ 386/25, and you get a 24-Pin LQ printer for free.

This incredible value includes:
- 14" VGA Mono Monitor
- 40 MB Hard Drive
- 80386-25 MHz CPU
- 101-Key Keyboard
- 1 MB Expandable RAM
- High-Capacity Floppy
- Free 1 Yr. On-Site Service
- Free Printer ($500 Value)
- Free Initial Software Consultation

FCC Class B Approved
All for only $2995 COMPLETE. Call for more information, to order, or for a dealer near you

MODEL AMERICAN COMPUTER CORPORATION™
1-800-843-3838
MasterCard & VISA accepted

CUT RIBBON COST

Re-ink your fabric ribbons with a Borg Ribbon Inker!

800-553-2404

Borg Industries, Janesville, IA 50647

Business Services

FOR INDIVIDUALS AND COMPANIES SEEKING GREATER ACCESS TO JAPANESE MARKETS!

Learn how an understanding of Cultural Dynamics can help eliminate trade barriers. Make your products or services more appealing to Japanese markets.

Multilingual Consultant with background in study and research at the National Museum of Ethnology in Osaka. Member Nihon Tenji Gakkai (organization for the study of Japanese design.)

Address inquiries to:
Sam Collier
165A Mt. Vernon St.
Boston, MA 02108
(617) 742-3872

Business Opportunities

Patented © 1989

1 MILLION CANS OF PEANUTS SOLD DAILY
NEW! HOT ROASTED PEANUT VENDING MACHINES
GROUND FLOOR OPPORTUNITY

To be the first in your area to own and operate a Hot Roasted Peanut Route. Placed in all bars, bowling alleys, pizza parlors. If you owned 8 machines and they sold only 2 bags per hour each, this would generate $3,000.00 monthly. Peanuts are America's favorite snacking choice. However, hot roasted peanuts have almost become extinct in the 90's. The two combined makes the tastiest snack around. When was the last time you had peanuts that were hot roasted?

LIMITED DISTRIBUTORSHIPS
Only $6800
Call World Marketing
24 hrs. for free brochure
(800) 447-3157

IT PAYS TO ADVERTISE IN THE BUSINESS WEEK MARKET-PLACE

The Business Week Market-Place Section is a special advertising feature appearing in the first issue of each month. The Market-Place provides an ideal 'Showcase' for advertisers who have products or services that appeal to Business Week's more than 6.2 million responsive readers.

For rates and information mail the coupon below, or call (312) 337-3090 or FAX (312) 337-5633.

MAIL COUPON TODAY

BUSINESS WEEK MARKET-PLACE
100 East Ohio St., Suite 632
Chicago, IL 60611

Name _____
Company _____
Address _____
City _____ State _____ Zip _____
Phone _____

FOR AD RATES
ND INFORMATION
PHONE:
(312) 337-3090
OR WRITE:

BUSINESS WEEK MARKET PLACE

BUSINESS WEEK
MARKET-PLACE
100 EAST OHIO STREET
SUITE 632
CHICAGO, IL 60611

Financial Services

UY STOCKS WITHOUT A BROKER

cial Report... Do-it-yourself investing at its best!
er than low commission...no commission investing!
Get this Special Report from
DOW THEORY FORECASTS

- **Special Report: 94 Electric Utilities**...clear ratings assigned, five special buys evaluated
- Charles Schwab's great book, **"How To Be Your Own Stockbroker"** (reg. $5.95 value)
- **Full Consultation Privileges**

with your 6 month (26 weekly issues) **introductory scription** for only $57. New subscribers only. VISA MC. Order today by phone or fax directly from:

Dow Theory Forecasts, Inc., Dept. BMP0790
2 Calumet Ave., Hammond, IN 46324 (219) 931-6480
FAX (219) 931-6487

Health/Fitness

E ULTIMATE CHAIR
stress-free workday!

Our leather office chair reclines!

kSaver FREE 14pg. catalog 1-800-251-2225 or write
y Ave., Dept. BW-26, Holliston, MA 01746
In MA 508-429-5940

usiness Opportunities

DOOR GOLF

f is one of our fastest ving industries, and with **T Golf**, the Incredible **oor** Golf system, you can r your guest a *complete* e of golf on world class rses, like Pebble Beach!

T Golf is an excellent ition to any Hotel, Resort, rts Bar, Golf Store, ving Range or start your n Free Standing Facility! more info on Par T Golf, ase call.

In Sports Marketing
Tel: (619) 698-2201
Fax: (619) 698-7648

FOR •THE• HOTTEST STOCK, OPTION, &FUTURES RECOMMENDATIONS

CALL THE LEIBOVIT LINE!
1-900-820-0877*
3 Times Daily - 11 AM, 1 PM, 3 PM
*Only $2.50/minute!

BONUS! Call before August 31 to receive a FREE Newsletter & Annual Forecast

Mark Leibovit, as seen on PBS & FNN

Business Service

INCORPORATING? FREE KIT
It's easy in Delaware or any state with our fast, reliable, inexpensive service. For free information call toll free (800)441-4303, or write:
CA.i CORPORATE AGENTS, INC.
Department BW, Box 1281
Wilmington, DE 19899

CONSULTEL
PROFESSIONAL TELE-MARKETING SERVICES

We know the secret to your success!
Professional, cost effective telemarketing
- *SCREENED APPOINTMENTS*
- *QUALIFIED PROSPECTS*
- *CUSTOMER SERVICE*
- *MARKET RESEARCH*
- *DIRECT SALES*

We offer you...
- *PROFESSIONAL OUTBOUND TELEMARKETING*
- *CLERICAL SUPPORT FOR YOUR PROGRAM*
- *DATABASE MANAGEMENT & SOFTWARE*
- *A ONE TO FIVE SUPERVISION RATIO*
- *EXCELLENT REFERENCES*
- *PERSONALIZED SERVICE*

Call or write today for a free brochure!
2320 N. WOODLAWN AVE METAIRIE LA 70001
1-(800)-256-2418 • FAX: 1-(504)-887-9398

Wine Cellars

Visa/MC/AmEx/Discover

WINECELLARS-USA
18 Models – We won't be undersold!
Immediate shipment on most models.

Handmade Wood Cellars		Your Cost
296 Bottle Credenza	Ret. $ 2795	$ 1795
440 Bottle Capacity	2495	1695
700 Bottle Capacity	3495	1995
Designer Models – *Not Handmade*		
40 Bottle Glass Door	$ 599	$ 499
60 Bottle Glass Door	749	659
FurVault holds about 8 Furs $3495		$ 1895

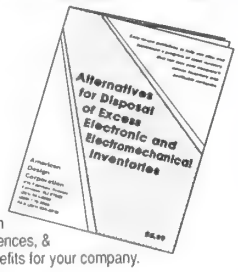
Only $2.85 per bottle
Model 700

Custom Cellars & Racking Systems – Call For Catalog
134 W 131ST St. Los Angeles • 800/777/VINO (777-8466) or in CA 213/719-9500

Inventories Purchased

Are excess inventories tying up *your* cash?

Send for a FREE copy of this guidebook detailing your company's cash recovery options from excess or obsolete electronic & electro-mechanical inventories.



This 32-page step-by-step guidebook outlines a wide range of disposal options, including private sale, auction, consignment & more. It explains the advantages & disadvantages of each option in terms of cash return, timing, overhead expenses & tax consequences, & helps you decide which method is best suited to maximize the benefits for your company.

To order, mail to:
..... AMERICAN DESIGN CORP. .....
P.O. Box 220, Dept. BW, 815 Fairview Ave., Fairview, NJ 07022
or *CALL TOLL FREE* 1 (800) 776–3800
Or, in New Jersey (201) 941–5000

Corporate Gifts

LEATHER BOOK BAG
ONLY $159
We pay shipping
17" x 13" x 7"
Visa/M.C./Check
1-800-999-1920
Grants Continental Clothing
9540 Harding Ave. Miami Beach, FL 33154

"NEW" DRY DRAWER

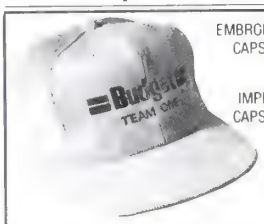
Draw Quick Straight Horizontal and Vertical Lines on a Dry-Erase Board !!!
SEND Check or Money Order for $19.00 TO
MANN INNOVATIONS, P.O. BOX 4412
Littleton, CO 80126 30 Day Money Back Guar

Corporate Gifts

CORPORATE TIES
(150 pc. minimum)
Gain recognition from neckties customized with company logo.
Free literature upon request

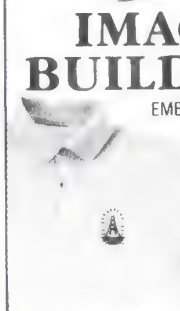
BARNARD-MAINE LTD.
33 Mead Ave. • Cos Cob
CT 06807 • U.S.A.
Dept. BW (203) 869-3006

Corporate Gifts



EMBROIDERED CAPS FROM **$3.95**
IMPRINTED CAPS FROM **$2.50**

IMAGE BUILDERS



EMBROIDERED POLO SHIRTS FROM **$14.95**

PORCELAIN MUGS FROM $1.39 REG. $2.50

MIN QTY 144

FREE PROMOTIONAL GIFT CATALOG
800-792-2277
IN CA 800-826-8585
FAX (415) 786-1111

The Corporate Choice®
3952 Point Eden Way • Hayward, CA 94545

Travel

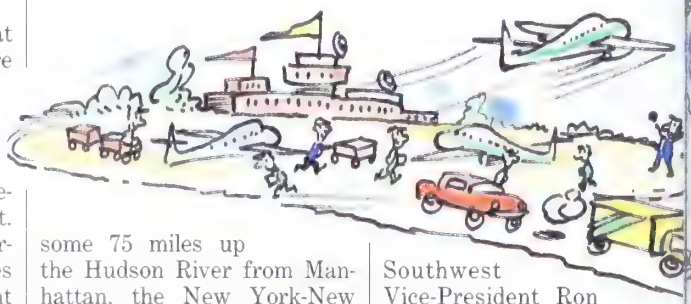
WHEN A 'SATELLITE' AIRPORT MAY BE JUST THE TICKET

A year later, Chicago attorney John Treece still boasts about how he halved the travel time to his sister's place on the tip of Long Island, N. Y. He could have flown to JFK or LaGuardia and inched his way out the Long Island Expressway (known locally as "the world's longest parking lot"). Instead, he flew right over the worst congestion on a nonstop American Airlines flight from O'Hare to MacArthur Airport in Islip, almost halfway out on the island. "It's just a small, country-bumpkin terminal," says Treece, "but it saved three or four hours."

Welcome to the burgeoning world of "satellite" airports. They lack the lounges, food concessions, and modern architecture of world-class airports, and many offer nonstop service to only a few points. But savvy travelers are using them with growing frequency to sidestep the ground traffic, flight delays, and hassle of sprawling megaterminals.

TAKING OFF. Not that satellite airports are new. Since Southwest Airlines began flying from Dallas' Love Field two decades ago, it has built a $1 billion business by offering low-price, high-frequency service between satellites in Houston, Detroit, Chicago, and now Oakland (near San Francisco) and Burbank (just outside Los Angeles). And since 1979, busy Midway Airlines has been linking a growing number of cities from its aging namesake airport on Chicago's South Side.

But a surge in service at satellite fields is letting more and more people sample their advantages. From a start two years ago, Southwest now offers 23 daily nonstops from long-neglected Detroit City Airport. In the hotly contested California corridor, United Airlines recently bolstered its flight offerings to and from such satellite airports as Ontario International and Oakland. And with the recent launch of American Airlines' jet service out of Stewart International Airport in Newburgh, N. Y., some 75 miles up the Hudson River from Manhattan, the New York-New Jersey area now boasts six airports with scheduled jet service.



Today, passengers often make their choice of carrier "on the basis of which airport, rather than which fare," says Southwest Vice-President Ron Ricks. Nowhere is that mor apparent than in Los Angele where urban sprawl and tra fic jams can turn a routin drive to LAX into an hour long, nail-biting journey. S Delta, United, American USAir, Alaska, and Southwes have built brisk businesses b using five nearby airport The various carriers fly t and from terminals in Lon Beach, Orange County, Onta io, Burbank, and Palmdale.

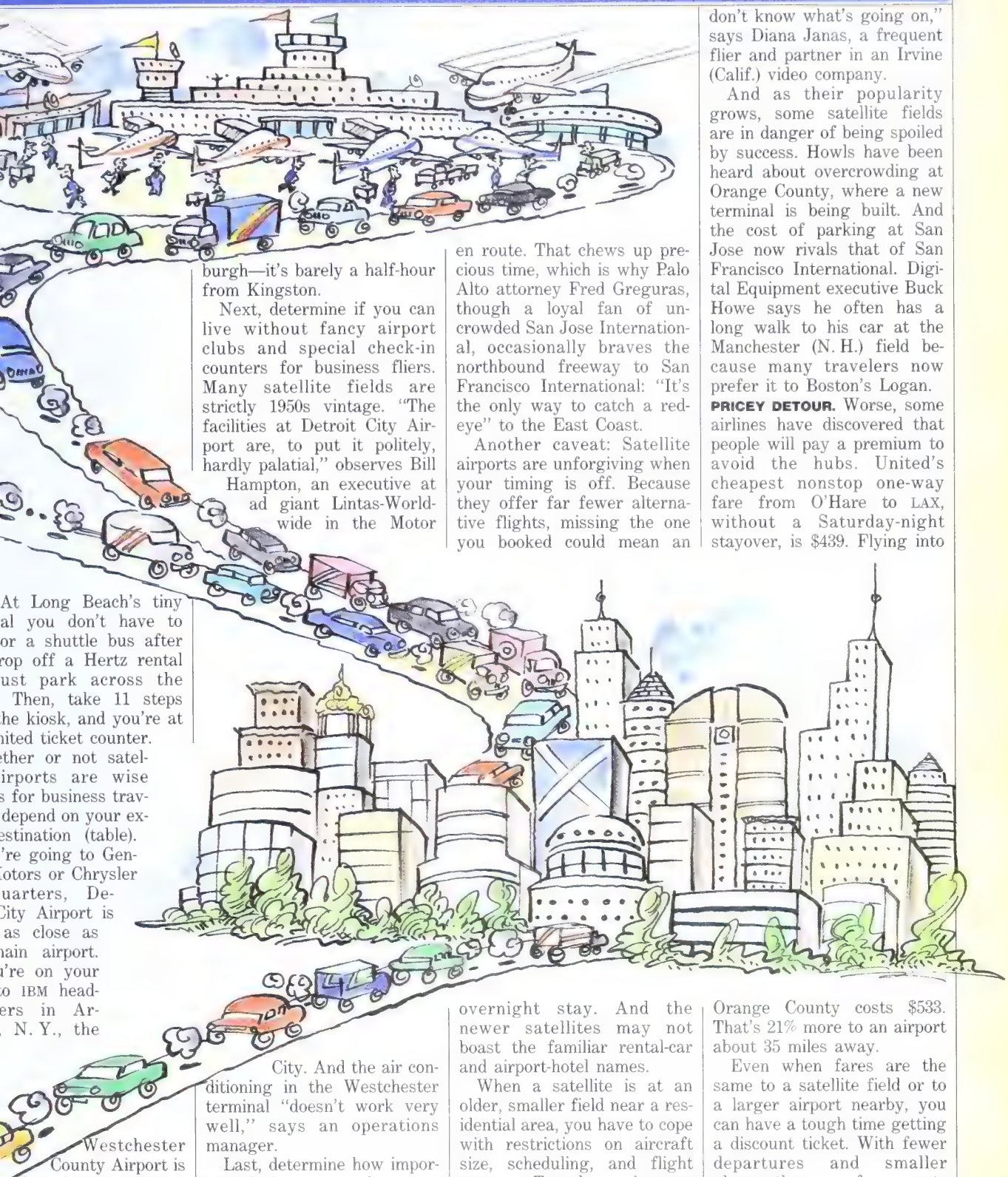
"Driving times in Los A geles have doubled in the pa 10 years, and it's going to g worse," says Drew Stekete executive director of a Was ington (D. C.) advocacy grou called the Partnership for Ir proved Air Travel. "So trave ers want an alternative." Pa rick Hunt, a Palmdale re estate broker, agrees. H says the service that Americ West offers between its La Vegas hub and his L. A. su urb "is the best thing sin inventing the wheel."

RENTAL RESPITE. Satelli fields offer more than traffi avoidance. Small termina mean shorter walks from th parking lot to the tick counter and fewer marath runs to the departure

WHERE SATELLITES CAN LAND YOU

Use...	On...	...To be near
FOR NEW YORK		
WESTCHESTER/ WHITE PLAINS	N'west, United, USAir	IBM, PepsiCo, TWA, GTE, Xerox
MACARTHUR/ ISLIP	American, USAir, United (Eastern, Sept. 6)	Grumman, the Hamptons
STEWART/ NEWBURGH	American	West Point; Danbury, Conn.
FOR CHICAGO		
MIDWAY	TWA, United, Midway, USAir, S'west, N'west	Downtown Chicago, northern Indiana, University of Chicago
FOR SAN FRANCISCO		
OAKLAND INTERNATIONAL	Alaska, America West, American, Delta, S'west, United, USAir	Safeway Stores, Cetus, Kaiser Aluminum & Chemical
SAN JOSE INTERNATIONAL	Alaska, Amer. W., American, Delta, Cont'l, TWA, United, N'west, USAir	Apple Computer, Hewlett-Packard, Intel, Silicon Valley
FOR LOS ANGELES		
BURBANK/ GLENDALE/ PASADENA	Alaska, America West, Delta, S'west, TWA, United, USAir	Lockheed, movie companies
ONTARIO INTERNATIONAL	Alaska, Amer. W., American, Cont'l, N'west, Delta, TWA, United, USAir	Eastern Los Angeles suburbs, Palm Springs
ORANGE COUNTY	Same	Irvine Co., AST Research, Fluor, Disneyland, Newport Bch.

DATA BW



At Long Beach's tiny
al you don't have to
or a shuttle bus after
rop off a Hertz rental
ust park across the
Then, take 11 steps
he kiosk, and you're at
nited ticket counter.
ether or not satel-
irports are wise
s for business trav-
depend on your ex-
estination (table).
're going to Gen-
Motors or Chrysler
uarters, De-
City Airport is
as close as
nain airport.
u're on your
o IBM head-
ers in Ar-
N. Y., the

Westchester County Airport is less than a 15-minute drive vs. an hour-long (if you're lucky) from ardia. Headed for the BM facility in Kingston, 40 miles farther north? the flight schedule into rt International in New-burgh—it's barely a half-hour from Kingston.

Next, determine if you can live without fancy airport clubs and special check-in counters for business fliers. Many satellite fields are strictly 1950s vintage. "The facilities at Detroit City Airport are, to put it politely, hardly palatial," observes Bill Hampton, an executive at ad giant Lintas-Worldwide in the Motor City. And the air conditioning in the Westchester terminal "doesn't work very well," says an operations manager.

Last, determine how important it is to you that your flight be a nonstop. If you're bound for the West Coast from Detroit City Airport or decide to go to New York from a Los Angeles satellite, you'll encounter a plane change or one or more stops en route. That chews up precious time, which is why Palo Alto attorney Fred Greguras, though a loyal fan of uncrowded San Jose International, occasionally braves the northbound freeway to San Francisco International: "It's the only way to catch a red-eye" to the East Coast.

Another caveat: Satellite airports are unforgiving when your timing is off. Because they offer far fewer alternative flights, missing the one you booked could mean an overnight stay. And the newer satellites may not boast the familiar rental-car and airport-hotel names.

When a satellite is at an older, smaller field near a residential area, you have to cope with restrictions on aircraft size, scheduling, and flight patterns. To reduce noise near Los Angeles' Orange County Airport, departing planes must take off at a very sharp angle, reduce power to their engines, and veer over the ocean before powering up. "It's really unnerving if you don't know what's going on," says Diana Janas, a frequent flier and partner in an Irvine (Calif.) video company.

And as their popularity grows, some satellite fields are in danger of being spoiled by success. Howls have been heard about overcrowding at Orange County, where a new terminal is being built. And the cost of parking at San Jose now rivals that of San Francisco International. Digital Equipment executive Buck Howe says he often has a long walk to his car at the Manchester (N. H.) field because many travelers now prefer it to Boston's Logan.

PRICEY DETOUR. Worse, some airlines have discovered that people will pay a premium to avoid the hubs. United's cheapest nonstop one-way fare from O'Hare to LAX, without a Saturday-night stayover, is $439. Flying into Orange County costs $533. That's 21% more to an airport about 35 miles away.

Even when fares are the same to a satellite field or to a larger airport nearby, you can have a tough time getting a discount ticket. With fewer departures and smaller planes, there are fewer seats to sell, discounted or not.

But a growing number of travelers don't seem to mind. Making the most of the nation's "down-home" airports might mean getting in ahead of the crowd. *Jim Ellis*

Smart Money

FINDING A GOOD BROKER —TO INVEST IN

For holders of brokerage stocks, the market's ascent is a godsend. Since the group tends to move with the market, the recent rally has pushed up the prices of many of the largest securities firms. And some of the stocks could still have legs.

For one thing, the securities industry shows signs of getting its act together after weathering a wretched period: the Dow's 190-point October plunge, the junk-bond market collapse, the takeover drought, and two quarters of declining profits.

Look at Shearson Lehman Hutton. After an operating loss of $128 million in the first quarter, it was profitable in the second, estimates parent American Express (which plans to buy all of the common stock in its subsidiary). It seems as if Howard Clark Jr., the longtime AmEx executive who became Shearson's CEO last January, has things moving. Shares of Shearson, which has received $1 billion from AmEx since December, have risen smartly from their all-time low of 10⅛ last January (table).

Prefer a longer record of success? Be on the lookout for a firm with a strong franchise in any of the industry's most lucrative revenue-generating sectors: retail brokerage, investment banking, or trading in bonds and stocks. The securities business is cyclical, says Shearson analyst Dean Eberling, "but firms that stick to one specialty will have lower costs in real estate, labor, and other overhead."

ON THE RISE. Of the retail brokerages, A. G. Edwards' growth prospects make it highly regarded by analysts. Now with 420 offices, Edwards is expanding just as rivals Merrill Lynch and Shearson are shrinking. This year, Edwards has signed up several hundred experienced brokers, whose average commissions are in six figures.

In the investment banking field, Morgan Stanley is the premier publicly held firm. Says Alison Deans of Smith Barney, Harris Upham: "Morgan has no problems with junk bonds, and its balance sheet has no exposure" to bridge loans—both high-risk forms of takeover finance. Moreover, Morgan Stanley is consistent: Its return on equity has averaged 30% over the past six years. If takeovers revive, Morgan "could go up to the $90 to $100 range," explains Larry Eckenfelder of Prudential-Bache.

But the hottest business on Wall Street is trading, and nobody does it better than Salomon Brothers. Its first-quarter gross trading earnings hit $534 million.

This stock group isn't for the faint of heart. Just like the market, "these stocks can rise and fall dramatically in a short time," notes Doyle Lyons of Merrill Lynch. And just like the market, they're most rewarding to those who can hang in for the long term. *Jon Friedman*

A FAST CLIMB FOR BROKERAGE STOCKS

Firm	Price	
	May 2	July 2
AMERICAN EXPRESS	26⅞	31¼
A.G. EDWARDS	22	26
MORGAN STANLEY	61½	71½
SALOMON BROTHERS	20⅝	24⅝
SHEARSON LEHMAN HUTTON	12⅜	14⅞

DATA: BRIDGE INFORMATION SYSTEMS INC

GOLDEN GIRL: OLYMPIAN JACKIE JOYNER-KERSEE WILL COMPETE

Sports

SCORING A SEAT AT SEATTLE'S GOODWILL GAMES

Seattle's summer should grow a few degrees hotter on July 20. That's the kickoff of the 1990 Goodwill Games—17 days of sports events featuring athletes from 50 countries. Turner Broadcasting's cable-TV outlets will cover this "mini-Olympics" daily, but tickets and hotel rooms are still available if you want to catch some of it in person.

Media mogul Ted Turner organized the quadrennial games to draw cable viewers and foster cooperation between the U. S. and the Soviet Union. Top competitors from each country, including Olympic medalists, are among the 2,500 participants. And some 1,000 Soviet fans will come to Seattle to cheer their heroes in track, skating, hockey, diving, gymnastics, and more.

BIG NAMES. The sold-out sign is up for diving, judo, and synchronized swimming. But Ticketmaster (206 292-1990) can get you into most other events, including the July 21 welcoming ceremonies, with Kenny Rogers and Arnold Schwarzenegger.

Then, for $10 to $50, you can watch Jackie Joyner-Kersee, the U. S. Olympic track gold medalist, face off on July 22 with Larisa Nikitina fro Moscow. Baseball fans wi head for Tacoma's Chene Stadium to watch the U. S team play the Soviets on Jul 26, the Japanese on July 2 ($3 to $25).

The Seattle Center Aren will host men's and women basketball, plus boxing wit Romania's light-middleweigh world champion, Francisc Vastag, and Cuban and Sovi contenders ($12.50 ringside).

Downtown hotels are tigh for the first four days, wit the headquarters Westin H tel (800 228-3000) and Sher ton (800 325-3535) booking re ervations only from July 2 on. The Edgewater (800 62 0670) has some rooms at $16

In outlying Bellevu though, you can stay at a H ton, Holiday Inn, Greenwoo Inn, or Red Lion and reac most game locations by bu (75¢). The Seattle-Tacoma ai port's Marriott (206 241-200 and Red Lion (206 246-860 are also apt to have rooms.

Save time for the arts fes val, highlighted by a "Mo cow: Treasures & Tradition: exhibit in the downtown co vention center. Its 500 yea of works include pricele paintings and pearl-studd icons. *Harriet Ki*

goes
ore places
an all
e major
lines
mbined.

The TC-220

's full line
x machines
ong distance
ers) offer
nuous non-
service every
econds to
destination in
world.
for details,
0-ABC-MITA.

mita

Proud sponsor of The New York Games.℠ Watch it on CBS Sports Sunday, August 5, 1990.

For more information write Mita Copystar America, Inc., P.O. Box 599, West Paterson, NJ 07424

4B

Name Company/Title

Address

City/State/Zip Phone

Mita. All we make are great copiers. Even long distance ones.™

© 1990 Mita Copystar America, Inc.

Leisure

A FARMHOUSE TOUR OF THE FRENCH COUNTRYSIDE

In the lush green hills of Alsace in eastern France, Georges and Michèle Gross raise sheep for milk that they make into cheese. But they also open their doors to tourists—offering three cozy upstairs rooms, each with bath. By day, guests hike, swim, or just sit back and watch Georges do the milking. Evenings, they join their young hosts around a table laden with the Gross family's cheese, quiche lorraine, and homemade eau-de-vie.

Welcome to the real France—the gentle, hospitable countryside. If you've had your fill of Europe's tourist-packed capitals, try relaxing in the tranquility of a farm. Knowing French isn't vital: Nearly half of the farmers who host visitors speak some English, and besides, language barriers evaporate in the glow of the dinner table.

You'll glow at the price, too: dirt cheap, typically about $25 a night for two, with a hearty breakfast. Dinner with wine at the Gross's (write La Colline, 88160 Fresse-sur-Moselle, France) is an extra $10.

As a rule, farmhouse accommodations are simple but comfortable. If you want elegance, however, you can find it—at François and Anita Fargeot's farm in the Dordogne, for example ($40 nightly; Doumarias, 24800 St-Pierre-de-Cole). Antiques grace the five guest rooms in their 16th century manor, and classical music accompanies dinner ($12).

Most farms will accept you for as little as one night, so consider renting a car and making a circuit that lets you stay at several. A farm can also be your base to tour a region: If, say, you visit the Bordeaux wine country, get an insider's view of winemaking by staying at Alain Meyre's vineyard farmhouse in a village of the Médoc region. In the fall, you can help harvest grapes ($35 nightly for two; Chateau Cap-Leon-Veyrin, 33480 Listrac-Médoc).

Like to keep active? You can go rock-climbing or, in the winter, enjoy cross-country skiing at Dominique Bon's charming farm in the French Alps (38250 Villard-de-Lans).

HEAVENLY HASH. If you're primarily interested in France's top sport—eating—head for the Périgord region northeast of Bordeaux, and stay at the Coustaty family's goose farm. It's in the hills near Sarlat ($30 nightly; Boyer, 24220 Meyrals). The foie gras, fresh bread, and confit of preserved goose are heavenly. After breakfast, *Grandpère* Coustaty leads walks to hidden local caves whose walls bear prehistoric paintings or to a cottage where women spin wool and knit sweaters in age-old fashion.

To start planning a farm vacation, write to the Maison des Gîtes de France (35, rue Godot de Mauroy, 75009 Paris). Its listings include 38,000 farms and rural homes. Ask for guides ($7 each) to specific regions you would like to visit. (The guides that are in French have photographs; a recent English translation doesn't.) A new list even pinpoints farms with well-stocked lakes and streams.

In a hurry? Phone the non-profit association (4742-2092) and English-speaking clerks will help you work up an itinerary. For a 15% fee, they will make your reservations payable by credit card.

And check your local book store for *French Country Bed and Breakfast* by Karen Brown (Warner Books, $12.95). Or, if you read French, *Vacances et Week-ends à la Ferme* by Michel Smith (Balland, $25) is more extensive. *Stewart Toy*

Ganders and grandeur: The Coustatys' geese and the Fargeots' 16th century manor

Worth Noting

■ **WINNING POINTS.** In 1988, the U. S. Tax Court denied a $4,440 deduction for "points" on a mortgage that refinanced two loans taken out two years earlier to buy and improve a home. Now, the 8th Circuit Court of Appeals (No. 39-1672, June 14) has overturned the ruling. It says the new mortgage was, as the statutory language says it must be, "in connection with" a home purchase.

■ **BUG BAG.** Youngsters who are intrigued by summertime insects can study them with a Joy of Nature Discovery Kit ($25, 415 453-6169). A shoulder bag holds a mini telescope/microscope, magnifying bug box, collecting net, compass and other tools for fledgling entomologists.

■ **SUITED UP.** Job-hunting grads ready to shuck jeans and t-shirts can get 25% off at 38 NBO stores in New York, New Jersey, Connecticut, and Washington, D. C. Just present a four-year college diploma to get the deal for suits, shirts, and ties.

ex to Companies

x gives the starting page for a story or fea- a significant reference to a company. Most ies are indexed under their own names. es listed only in tables are not included.

& Straus 66
ntertainment 145
3
es 66
ic 111
43
Vest 170
Airlines 170
Cyanamid 54
Express 172
Stores 30
3
nputer 154
te 31
d Mortgage 150
5
ew England 146
ica 146
rust 146
ank 150
Goodman 66
nera Stores 32
nn 114
dale's 58, 66
31
d Sox 58
ers Squibb 54
Ferris 62
66
66
fort 41
66
45
Colorado 58
r 41
velopment 150
estment 31
anhattan 146
Magnet Wire 30
152
143
146
4
nie Générale cite 111
al Illinois 38
al Illinois Nat'l Trust 152
al Insurance 143
Convergent Technologies 154

D

DEC International 40, 154
Delta 170
Deutsche Bank 111
Dresdner Bank 111

E

Eastern Airlines 38
Eastman Kodak 32
Edwards (A.G.) 172
Eurocom 114

F

Federated Department Stores 66
Finarte 41
Fireman's Fund 143
First American 146, 150
First Union 146
Ford 41, 58, 111, 146
Forstmann Little 38
Fujisawa Pharmaceutical 54

G

Genentech 10, 33
General Electric 111
GM 111, 146
Groupe Bull 40, 154
Grumman 167

H

Hanson 31
Havas 111
Heidelberger Zement 111
Henri Bendel 66
Hewlett-Packard 154
Hochtief 111
Honeywell 154

I

IBM 31, 111, 154
Icos 38
Ito-Yokado 111

J

J.P. Morgan 146
Jordan Marsh 66

K

K mart 31
Keegan Management 145
Kohlberg Kravis Roberts 38

L

Lam Research 145
Leaseway Transportation 38, 146
Leaseway Transportation 38
Lockheed 36
Lotus Development 31
Lucky Stores 30

M

Macy's 66
Manufacturers Hanover 38, 146
Martin Marietta 167
Marui Department Store 111
May 66
McGraw-Hill 24
Merck 54
Merrill Lynch 143, 172
MGM/UA 36
Micrion 160
Microsoft 31, 38
Midway Airlines 170
Minolta 32
Mitsukoshi 44
Morgan Stanley 172
Municipal Bond Investors Assurance 143

N

National Amusements 145
NEC 111, 154, 160
Nintendo 145
Nippon Telegraph & Telephone 111
Nissan 41
Nordstrom 58, 66
Northeast Utilities 144
Northwest Airlines 38
Nutri/System 145

O

Olivetti 154
Orient 44

P

Pacific Mutual Life Insurance 62
Paperback Software 31
Pathe Communications 36
Pelton & Crane 41
Philipp Holzmann 111
Philips 31, 40, 154
Polaroid 32
Polly Peck International 41
Praxis Biologics 54
Procter & Gamble 54
Prudential-Bache Securities 144
Public Service Co. of New Hampshire 144

Q

Quadra Logic 54

R

Renault 41
Rich's 66
RJR/Nabisco 38

S

Saatchi & Saatchi 114
Salomon Brothers 143, 172
Sandia National Laboratories 167
Santa Cruz Operation 31
Schering-Plough 54
Sears 31
Security Pacific 146
Seibu Department Stores 44
SGS-Thomson 40
Shearson Lehman Hutton 172
Siemens 40, 41, 111
Singer Imaging 167
Small World Paging Trading Alliance 10
Smith Corona 31
SmithKline Beecham 54
Sony 111
Southeast Banking 146
Southwest Airlines 170
STET 111
Sumitomo 145, 160
Suntory 44
Syntex 33

T

Takashimaya 44
Tokyo Electron 145
Travelers 143

U

Unilever 54
Unisys 154
United Airlines 170
United American Healthcare 150
USAir 170

V

Viacom 145
Vitarine Pharmaceuticals 54
Volkswagen 111

W

Wells Fargo 146
Western Union 38
Weyerhaeuser 50, 51
WMS 145

X

Xerox 31

1	Exxon
2	General Motors
3	Mobil
4	Ford Motor
5	IBM
6	Texaco
7	E.I. du Pont
8	Standard Oil (Ind.)
9	Standard Oil of Cal
10	General Electric
11	Gulf Oil
12	Atlantic Richfield
13	Shell Oil
14	Occidental Petroleum
15	U.S. Steel
16	Phillips Petroleum
17	Sun

27 million Americans can't read. And guess who pays the price.

Every year, functional illiteracy costs American business billions.

But your company can fight back...by joining your local community's fight against illiteracy. Call the Coalition for Literacy at toll-free **1-800-228-8813** and find out how.

You may find it's the greatest cost-saving measure your company has ever taken.

A literate America is a good investment.

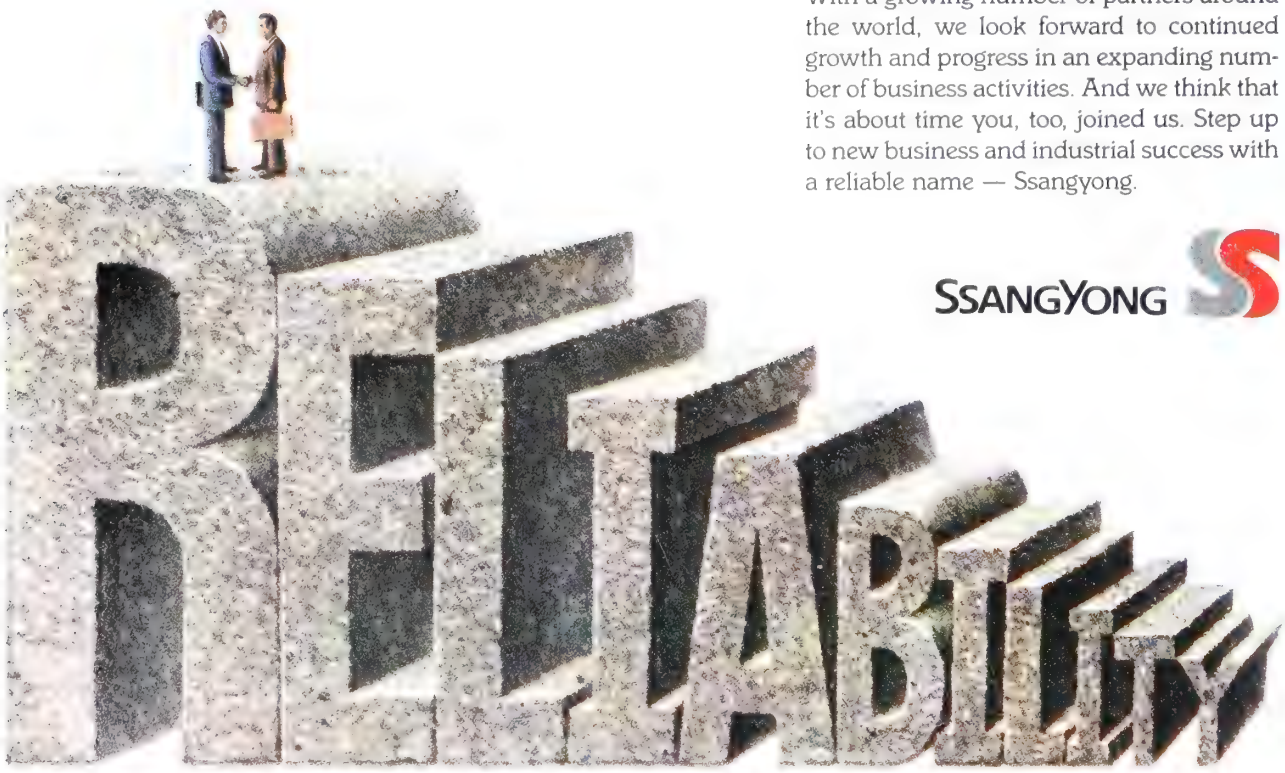
Ad Council Coalition for Literacy

Step up to success with Ssangyong reliability.

At Ssangyong, we've taken a lot of steps recently that add to our 50-year tradition of proven reliability: annual trade volume of over $2.5 billion, Guinness Book record with construction of the world's tallest hotel in Singapore's Raffles City Complex, the world's largest single cement production facility, and total sales volume in 1989 of well over $7.1 billion.

And we continue to grow, step-by-step, in such diversified business and industrial fields as cement, construction, oil refineries, automobiles, machinery, securities, insurance, computers, electronics, paper, shipping and general trade.

These are all visual accomplishments based on invisible traditions of reliability and responsibility, mutual trust and respect. With a growing number of partners around the world, we look forward to continued growth and progress in an expanding number of business activities. And we think that it's about time you, too, joined us. Step up to new business and industrial success with a reliable name — Ssangyong.



SSANGYONG

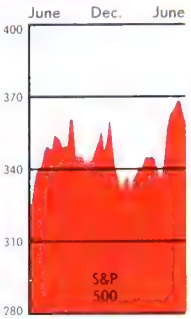
• Central P.O. Box 409 Seoul, Korea • Telex: TWINDRA K23258, K24630, K24270, K28442, K28215 • Phone: 270-8114 • Fax: 273-0981, 274-2896, 273-8297

vestment Figures of the Week

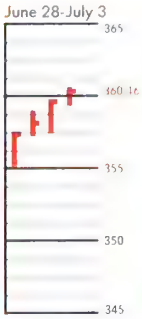
ENTARY

ond half opened on an up-
he Dow Jones industrials
nearly 70 points in five
sessions, once again cross-
2900 barrier. Smaller-cap
noved up, too, but with
odest gains. The rebound
ped by the rally in the
arket that knocked 10 ba-
ts off interest rates. For-
change traders dumped
for marks in the euphoria
erman monetary unifica-
t that didn't hurt U.S. mar-
all.

STOCKS

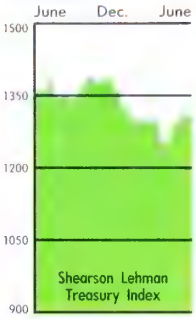


52-week change
+ 12.3%



1-week change
+ 1.4%

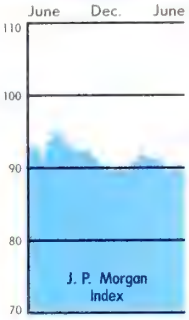
BONDS



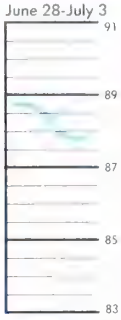
52-week change
−3.1%

1-week change
+ 0.9%

THE DOLLAR



52-week change
−4.5%



1-week change
−1.1%

RKET ANALYSIS

TOCKS	Latest	% change Week	52-week
ONES INDUSTRIALS	2911.6	1.7	18.5
MPANIES (Russell 1000)	187.3	1.3	10.4
COMPANIES (Russell 2000)	168.9	1.0	0.6
MPANIES (Russell 3000)	199.5	1.3	9.6

GN STOCKS	Latest	% change (local currency) Week	52-week
N (FINANCIAL TIMES 100)	2371.7	−0.1	9.7
(NIKKEI INDEX)	32,414.6	0.3	−2.7
TO (TSE COMPOSITE)	3559.9	1.2	−5.6

FUNDAMENTALS	Latest	Week ago	Year ago
90-DAY TREASURY BILL YIELD	8.0%	8.1%	8.0%
30-YEAR TREASURY BOND YIELD	8.4%	8.5%	8.1%
S&P 500 DIVIDEND YIELD	2.9%	3.2%	3.5%
S&P 500 PRICE/EARNINGS RATIO	16.6	16.3	12.5

TECHNICAL INDICATORS	Latest	Week ago	Reading
S&P 500 26-week moving average	343.3	343.2	Positive
Stocks above 26-week moving average	46.9%	42.9%	Neutral
Speculative sentiment: Put/call ratio	0.32	0.40	Neutral
Insider sentiment: Vickers sell/buy ratio	1.06	1.04	Positive

USTRY GROUPS

BRIDGE INFORMATION SYSTEMS INC

WEEK LEADERS	% change 4-week	52-week	Strongest stock in group	% change 4-week	52-week	Price
TH CARE SERVICES	11.4	38.0	BEVERLY ENTERPRISES	25.6	−23.4	6⅛
CCO	6.9	28.3	PHILIP MORRIS	9.0	35.6	47⅛
ITAL MANAGEMENT	6.6	26.6	HUMANA	8.2	45.2	49⅜
ETICS	6.5	33.3	GILLETTE	7.3	51.4	60¾
SEHOLD PRODUCTS	5.2	48.0	PROCTOR & GAMBLE	6.5	62.7	88¼

WEEK LAGGARDS	% change 4-week	52-week	Weakest stock in group	% change 4-week	52-week	Price
	−14.6	4.4	HASBRO	−17.2	−17.2	17½
AND GAS DRILLING	−13.0	21.4	ROWAN	−13.2	37.3	11½
KING	−12.7	−13.3	CONSOLIDATED FREIGHTWAYS	−29.4	−56.3	12⅝
-DISTANCE TELECOMMUNICATIONS	−9.3	13.8	UNITED TELECOMMUNICATIONS	−11.6	21.2	40
OR REGIONAL BANKS	−8.6	−18.3	FLEET/NORSTAR FINANCIAL GROUP	−18.4	−30.1	18⅞

TUAL FUNDS

MORNINGSTAR INC

RS

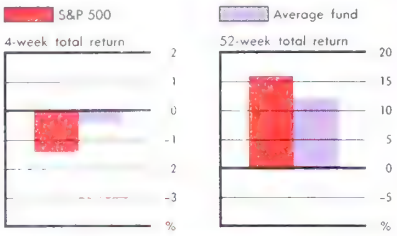
ek total return	%
UNITED KINGDOM SMALL COMPANY	6.5
CE	6.1
LITY SELECT BIOTECHNOLOGY	5.7

k total return	%
ITY STRATEGIES	57.3
LITY SELECT BIOTECHNOLOGY	56.4
NCIAL STRATEGIC HEALTH SCIENCES	55.4

LAGGARDS

Four-week total return	%
STRATEGIC INVESTMENTS	−7.7
STRATEGIC SILVER	−7.4
FINANCIAL STRATEGIC GOLD	−6.1

52-week total return	%
NATIONAL REAL ESTATE INCOME	−17.6
FIDELITY SELECT BROADCAST & MEDIA	−14.0
UNITED SERVICES REAL ESTATE	−12.6



LATIVE PORTFOLIOS

DATA RESOURCES INC.

amounts
ent the present
of $10,000
ed one year
each portfolio

ages indicate
y total returns

U. S. stocks	Money market fund	Treasury bonds	Foreign stocks	Gold
$11,299	$10,716	$10,430	$10,338	$9,442
−1.10%	+0.15%	+0.29%	+0.87%	+0.20%

on this page are as of market close Tuesday, July 3, 1990, unless otherwise indicated. Industry include S&P 500 companies only; performance and share prices are as of market close July 2. Mutual fund returns are as of June 29. Relative portfolios are valued as of July 2. A more detailed explanation of this page is available on request.

Editorials

A RARE CHANCE TO STREAMLINE BANKING

There are approximately 13,000 commercial banks in the U. S. operating under a hodgepodge of state and federal regulations, which are supervised by five separate agencies. It's a mess.

Current troubles in the banking industry—serious but not nearly as severe as among savings and loans—provide an important window of opportunity. They could help shore up the country's jerry-built banking system and give it the efficiencies to compete in a global banking environment.

The banks' only economic function—borrowing capital and lending to businesses to facilitate commerce—must be consolidated down and strengthened. Here's how to do it:

Permit commercial banks to consolidate into a significantly smaller pool of players. Federal and state regulators should allow mergers and acquisitions of all banks, including big money-center banks. Its current "no-failure" policy of protecting the biggest banks translates at times into protecting those that are least efficient. Let the market rule here.

True national, interstate banking must be permitted by the regulators. Technically, the Citicorps and Chase Manhattans can do all kinds of lending in every state of the union. But they can't accept savings deposits everywhere. Besides making capital-raising less efficient, the interstate limitations help prevent banks from spreading their risks to ride out rolling regional recessions.

Reality also demands the consolidation of government banking regulation itself. Doing business with the Federal Reserve Board, Comptroller of the Currency, Securities & Exchange Commission, and 50 states looking over your shoulder can test the patience of Job.

Government reform of its own deposit insurance program is also overdue. The unseemly paradox of risk-free, federally insured savings allowing high-risk investments should be ended. Small savers could put their thousands into banks that invest only in Treasury bills or bonds, and the big boys could put their millions into different institutions.

The heyday of American banking in the 1950s and 1960s coincided with relatively cheap domestic capital and virtually no foreign competition. Both conditions have changed dramatically. But U. S. banks, and their government regulators, have not adapted. Here is their chance.

IT'S TIME TO MILK THE SACRED COWS

When the history of the 1990 budget fight is written, the battle over taxes may turn out to have been the easy part. The battle over domestic spending is where the real blood will be shed. The problem is entitlements, which account for 55% of all federal outlays for everything excluding interest on the national debt. If there are no changes, this will rise to 65% by 1995.

Unfortunately, entitlements—benefits that go automa cally to anyone who meets qualifications—are the hardest all programs to curb. But if we are ever to make progre against the deficit, cuts must be made. Politicians can sta by taxing retirement benefits, not cutting them. A sign cant minority of retirees, among them many of the olde rely on Social Security for virtually all of their incom Better to tax the benefits received by wealthier pensione

It is also time to raise medicare copayments and pre ums. Efforts to slow the stunning rise in the cost of me care by squeezing hospitals and doctors have about run th course. Making the elderly pay a somewhat larger share their medical bills saves the government money and mak beneficiaries more cost-conscious consumers.

The Veterans Administration is a cow almost as sacred Social Security. Yet the VA health system appears design to function more for the benefit of the bureaucrats who r it—and their congressional sponsors—than for the natio ex-soldiers. It may be cheaper for the government to pay t private-sector health care for veterans.

The government will spend tens of billions of dollars th year on farm subsidies. The big savings must come fr wheat, corn, soybeans, and milk subsidies. The U. S. mu stanch this flow of taxpayer money to agriculture. O proposal, by Representative Richard Armey (R-Tex.), wou take the richest farmers off the dole. It's worth considerin So is almost any other idea that may prevent the budg from drowning in a flood of entitlements.

THE RIGHT KIND OF AID FOR THE SOVIETS

In this summer of summitry, aid to the Soviet Union h emerged as a priority. With *perestroika* flounderin Western countries understandably worry that a colla ing economy may topple Mikhail Gorbachev.

So far, the Soviets haven't asked the U. S. for aid—a they probably won't. But France, Germany, and other We ern allies are offering it, and the U. S. must decide wheth to follow suit. The U. S. has a vital stake in seeing Sov economic reform continue. That reform is not pegged to "save Gorby" campaign, and U. S. aid doesn't have to l either. Any Gorbachev successor would have no choice b to carry on with *perestroika.*

The right kind of U. S. aid would be loans given und generous terms and strictly tied to specific aims. Th should bolster those few reforms that have succeeded *perestroika*'s five years. One example would be loans Soviet cooperatives. These small, private businesses are bl soming in most cities. Loans from the U. S. could also ass Soviets in setting up a network of commercial banks to he finance the planned privatization of Soviet industry. Anoth possibility is an idea by Dutch Prime Minister Rudolph Lu bers: a European energy agency to help Soviets develop a market their huge natural-gas supplies. The Bush Admin tration's foot-dragging on aid is not the policy of a gre nation. Selective aid would show Americans and their alli that the U. S. is committed to helping Soviet reforms.

Model of perfection.

Tanqueray. A singular experience.™

Imported English Gin. 47.3% Alc/Vol (94.6°). 100% Grain Neutral Spirits. ©1989 Schieffelin & Somerset Co., New York, N.Y.

In the first hour you were asleep, some 850 Boeing jetliners landed.

In the second hour, another 850 touched down.

And within eight hours, Boeing planes came in more than 6,000 times.

What's truly amazing, however, isn't that all this happened in one eight-hour period.

It's that it happens in every eight-hour period.

The fact is, Boeing planes la every four and a half seconds.

Of every minute. Of every hour. Of every day.

And this year, Boeing jetline will carry over 850 million peop

July 23

▶ ASEA'S GLOBAL PUSH ▶ WILL ABC PASS NBC?

3 9042 02349887 3

SURE TO SAY PAGE 54

BusinessWeek

JULY 23, 1990 A McGRAW-HILL PUBLICATION $2.00

AIRWAVE WARS

BURLINGAME
JUL 1 3 1990
LIBRARY

The communications spectrum is too crowded. So how do we make room for all those new technologies?

PAGE 48

**********CAR-RT-SORT**CR30
0602 1058111160 SEP91 T18
BURLINGAME PUBLIC LIBRARY
480 PRIMROSE RD
BURLINGAME CA 94010

74367

Ten of Europe's toughest critics awarded Wyse their top prize
Over 3 million even tougher critics awarded us their business

The Wyse Model 3225, winner of Europe's CeBIT award for design excellence. Novell certified as a network server, this 25 megahertz 386 runs today's demanding business software with brisk efficiency.

Source IDC 1989 Terminal Census

WYSE is a registered trademark and Model 3225 is a trademark of Wyse Technology Inc All other trademarks are property of their respective owners © 1990, Wyse Technology Inc

he world's largest computer exposition is eBIT, held in Hannover, Germany. It is the remier international showcase for the atest and finest computer products from round the world. And in 1990, the Euro-ean computer experts who judge at CeBIT warded their top **THE WORLD IS GETTING WYSE.** onor for design excellence to a Wyse ersonal computer, our Model 3225. everal PC brands are better known than Vyse to the world at large. But it isn't par-cularly surprising that one of ours was elected for this prestigious award. Wyse esign expertise has been winning a fol-owing among computer professionals for early a decade. And today, we have an nstalled base of over 3,000,000 terminals nd personal computers. Our design goal lways is to add value. The ingenious design f our terminals, for example, gives them ore features, styling and ergonomics han the competition. For less money. As result, Wyse is the largest independent naker of computer terminals! Similarly, ur new family of UNIX multiprocessor ystems offers better price/performance atios than any similar line. Plus the invest-nent protection of expandability. You'll nd such value reflected throughout our amily of PCs, as well. All are extensions f the design philosophy and capability onored by the CeBIT judges. To learn nore about their winning ways, just call -800-438-9973.

WYSE

1 800 GET WYSE

Bill Coleman, talented amateur photographer and investment banker with an environmental focus.

Bill Coleman believes the environment is a sound investment.

Bill Coleman is not an ecologist, he's a banker.

He looks at the world's growing preoccupation with environmental issues from a different perspective. One which has begun to influence the advice he gives investment clients at James Capel & Co. in London.

"There can be no doubt about the scale of opportunity for companies which can help bridge the gap between the demand for energy and the realities of protecting our environment", says Coleman.

"We are seeing the emergence of a new business sector spanning a range of energy and environmentally-related technologies that is going to rank alongside such things as microelectronics, telecommunications and genetic technology in importance.

"Nature's energy resources are undervalued assets in more ways than one."

Electrical engineering will be a key technology in the twenty-first century. The facts are simple. By the year 2000, the world's energy demands will have increased by 30%. There will be one billion new consumers whose needs must be met while the effects on our environment must be minimized.

ABB is a world leader in electrical engineering, committed to the development of new and better ways of generating power, getting it to where it is needed, and using it efficiently.

Asea Brown Boveri Inc.
Department 1-S
900 Long Ridge Road
Stamford, Connecticut 06904

ABB
ASEA BROWN BOVERI

NUMBER 3170

BusinessWeek

JULY 23,199

BATTLE FOR THE BANDS: FROM THE ANTENNAS OF THE WORLD TRADE CENTER TO YOUR GARAGE-DOOR OPENER, AIRWAVES ARE PRECIOUS BOOTY

Cover Story

48 AIRWAVE WARS
The electromagnetic spectrum is the highway of the Information Age. Alas, it's like land: They're not making any more of it. Every day sees new technologies vying for space on bands already crowded with everyone from ham radio operators to *The Simpsons*. But there are some solutions in the wind, both on Capitol Hill and in the lab

51 NO WIRES, BUT HAYWIRE
An invisible gridlock is blamed for false busy signals, unheard SOSs, and a host of other glitches

Top of the News

24 PRESSURE ON PROFESSIONALS
Lawyers, CPAs, you name it—they're up against competition and scandal

26 BUTTING HEADS IN HOUSTON
The Group of Seven couldn't agree on much of anything at the summit

27 SMALL POTATOES AFTER ALL?
The FBI probe of Chicago traders isn't producing major convictions

28 SASHAYING INTO A SLUMP
Can Paris' chic Galeries Lafayette make it on Fifth Avenue?

28 SHARPER IMAGE'S PROFITS FADE
The frivolities purveyor has to get serious about cutting costs

29 LONELY FOR THE TOP
With Ramada and Rodeway sold, Prime Motor Inns plots a way back

30 COMMENTARY
A 'killer' computer virus? That's one weapon that's likely to backfire

31 DREAMS OF FIELDS
The ex-DARPA head has a new home for pushing U. S. high-tech research

32 PERSONAL TURNAROUND
A businessman who is mentally impaired—and successful

36 IN BUSINESS THIS WEEK
USX and the USW, Acer, digital tape, Coke and the NFL, pay-phone vandals, drug research, Apple

International

40 JAPAN
An LDP official suggests a freeze on defense spending—and sets an unusually rancorous debate raging

41 COMMENTARY
Crunch time for high tech in Europe

42 BRITAIN
A spate of bankruptcies is hitting the country's hot-growth companies of the 1980s and shaking the economy

46 THE PHILIPPINES
Guerrillas and horrific red tape have foreign investors running scared—and Aquino in ever-deeper trouble

47 INTERNATIONAL OUTLOOK
Will Gorbachev use his new powers?

Economic Analysis

16 ECONOMIC VIEWPOINT
Kuttner: The wages of deregulation

20 ECONOMIC TRENDS
Cash flow, dividend growth, higher taxes, Japan and U. S. real estate

THE MODEL MULTINATIONAL? ASEA BROWN BOVERI NOW CONTROLS A FAR-FLUNG FIEFDOM WORTH $25 BILLION. ITS CREDO: BE STATELESS, BUT DON'T ACT THAT WAY

40 NO PEACE DIVIDEND IN JAPAN: OTHER MAJOR POWERS ARE STARTING TO SCALE BACK THEIR MILITARY BUDGETS. BUT JAPAN WILL LIKELY CONTINUE ITS ARMS BUILDUP

74 COMEBACK TIME AT ABC: CUTTING COSTS AND BOOSTING RATINGS WITH SUCH QUALITY SERIES AS *CHINA BEACH* HAVE PUT THE NETWORK SOLIDLY IN THE RACE

BUSINESS OUTLOOK
If you're not nervous yet, take a good look at the job markets

BENEATH THOSE JOB NUMBERS
Unemployment only looks stable

Government

WASHINGTON OUTLOOK
Fear and loathing in Louisiana's legislature

Finance

CAN YOU TRUST YOUR ANALYST?
They're equal parts academician, soothsayer, and salesman—and that invites conflicts of interest

SHOOTING THE MESSENGER
An analyst who foresaw Trump's fall

IS PERELMAN PLAYING FAIR?
Minority shareholders are charging the Revlon mogul with fraud

LITTLE PROBLEM AT WR LAZARD
The successful minority-owned investment firm owes Drexel money

INSIDE WALL STREET
Horn & Hardart: Adieu to eateries
Where pink slips mean more work
Pinkerton's is bagging buyers

INVESTMENT FIGURES OF THE WEEK

Information Processing

WILL THIS ONE WIN FOR XEROX?
The company is going after the computerized office-systems market with Xenith, a supermachine

The Corporation

64 PREACHING THE EURO-GOSPEL
Percy Barnevik wants Asea Brown Boveri to be a prototype for the post-1992 stateless corporation

67 ENTERPRISE
Isotechnologies: Back-pain monitors
Vivigen: Genetic testing
Who gets the family business?

Science & Technology

68 DEVELOPMENTS TO WATCH
Computers, malaria, superfast chips, medical waste, weed suicide

26 A MIXED CHORUS: THE HOUSTON ECONOMIC SUMMIT ENDED WITH THE ALLIES AGREEING ON FEW MATTERS—AND UNWILLING TO COMMIT TO PRACTICALLY ANYTHING

69 HOPES FOR NEUROTRANSPLANTS
Fetal cells help Parkinson's disease and more, but controversy continues

People

72 RIVERBOAT GAMBLER
Pittsburgh's John E. Connelly is betting big on waterborne betting

Entertainment

74 HAPPY DAYS AT ABC
The network is closing in on NBC

Marketing

76 READ 'EM AND WEEP
Ad sales have magazines rethinking

Personal Business

80 OUTDOORS: Ah, wilderness!
STEREO: Digital audio tape's debut
SMART MONEY: New fans for ADRs
FINANCES: Your pension rescue plan

Features

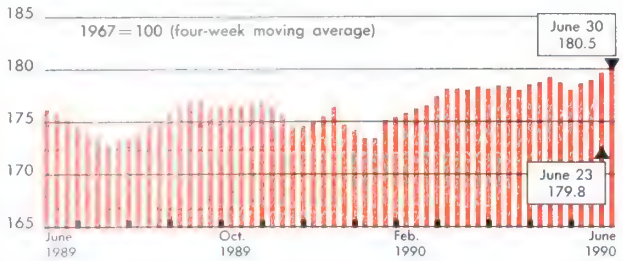
6 BUSINESS WEEK INDEX
9 READERS REPORT
13 CORRECTIONS & CLARIFICATIONS
14 BOOKS
Bart: *Fade Out*
84 INDEX TO COMPANIES
86 EDITORIALS
Why should airwaves be free as air?
These trading blocs block free trade
A tax to sap Wall Street's strength

ess Week (ISSN 0007-7135) published weekly, except for one issue in January, by McGraw-Hill Inc. U. S. subscriber rate $39.95 per year. In Canada, one year: CDN $54.95. Single s $2.00. Executive, Editorial, Circulation, and Advertising Offices: 1221 Avenue of the Americas, New York, N. Y. 10020. Second-class postage paid at New York, N. Y., and at additional mailing s. Postage paid at Montreal, P. Q. Registration Number 9010. Title Reg. in U. S. Patent Office **Postmaster:** Send address changes to BUSINESS WEEK, P. O. Box 430, Hightstown, N. J. 08520

BusinessWeek Index

PRODUCTION

Change from last week: 0.4%
Change from last year: 3.5%

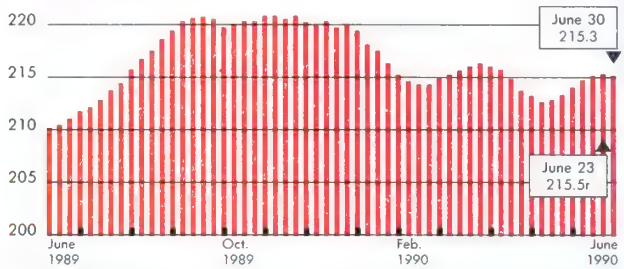


The production index increased for the week ended June 30. On a seasonally adjusted basis, output of paperboard, trucks, crude-oil refining, autos, and electric power rose. Rail-freight traffic, lumber, steel, coal, and paper production declined. Prior to calculation of the four-week moving average, the index fell to 179.7 from 181 in the previous week. For the month of June, the index rose to 180.5 from May's level of 178.6.

BW production index copyright 1990 by McGraw-Hill Inc.

LEADING

Change from last week: –0.1%
Change from last year: 1.6%



The leading index declined for the week ended June 30. Lower stock prices and slower growth in real estate loans offset a small decline in materials prices and faster growth in M2. Long-term bond yields were unchanged and data for business failures were unavailable. Before calculation of the four-week moving average, the index slipped to 214.5 from 215.4. For the month of June, the index stood at 215.3, up sharply from 213.8 in May.

Leading index copyright 1990 by Center for International Business Cycle Research

PRODUCTION INDICATORS

	Latest week	Week ago	% Change year ago
STEEL (7/7) thous. of net tons	1,781	1,858 #	–1.5
AUTOS (7/7) units	70,022	143,691r #	71.1
TRUCKS (7/7) units	47,070	92,252r #	60.9
ELECTRIC POWER (7/7) millions of kilowatt-hours	62,258	62,538 #	7.6
CRUDE-OIL REFINING (7/7) thous. of bbl./day	14,178	13,973 #	1.4
COAL (6/30) thous. of net tons	17,389 #	19,390	20.7
PAPERBOARD (6/30) thous. of tons	763.1 #	724.0r	1.0
PAPER (6/30) thous. of tons	751.0 #	761.0r	0.0
LUMBER (6/30) millions of ft.	468.1 #	484.4	–8.9
RAIL FREIGHT (6/30) billions of ton-miles	19.6 #	20.3	8.9

Sources: American Iron & Steel Inst., *Ward's Automotive Reports*, Edison Electric Inst., American Petroleum Inst., Energy Dept., American Paper Inst., WWPA[1], SFPA[2], Association of American Railroads.

FOREIGN EXCHANGE

	Latest week	Week ago	Year ago
JAPANESE YEN (7/11)	149	151	140
GERMAN MARK (7/11)	1.64	1.65	1.89
BRITISH POUND (7/11)	1.80	1.78	1.62
FRENCH FRANC (7/11)	5.53	5.54	6.42
CANADIAN DOLLAR (7/11)	1.16	1.16	1.19
SWISS FRANC (7/11)	1.40	1.39	1.63
MEXICAN PESO (7/11)[3]	2,857	2,859	2,494

Sources: Major New York banks. Currencies expressed in units per U. S. dollar, except for British pound expressed in dollars.

PRICES

	Latest week	Week ago	% Change year ago
GOLD (7/11) $/troy oz.	354.300	362.000	–6.7
STEEL SCRAP (7/10) # 1 heavy, $/ton	110.50	112.00	0.0
FOODSTUFFS (7/9) index, 1967 = 100	227.0	228.2	0.6
COPPER (7/7) ¢/lb.	120.2	115.7	10.5
ALUMINUM (7/7) ¢/lb.	72.5	72.4	–14.2
WHEAT (7/7) # 2 hard, $/bu.	3.25	3.32	–25.8
COTTON (7/7) strict low middling 1-1/16 in., ¢/lb.	79.50	80.03	20.7

Sources: London Wed. final setting, Chicago mkt., Commodity Research Bureau, *Metals Week*, Kansas City mkt., Memphis mkt.

LEADING INDICATORS

	Latest week	Week ago	% Change year ago
STOCK PRICES (7/6) S&P 500	358.45	355.03	11.6
CORPORATE BOND YIELD, Aaa (7/6)	9.22%	9.27%	2.8
INDUSTRIAL MATERIALS PRICES (7/6)	101.4	103.1	–3.0
BUSINESS FAILURES (6/29)	NA	285	NA
REAL ESTATE LOANS (6/27) billions	$373.6	$374.2	11.2
MONEY SUPPLY, M2 (6/25) billions	$3,286.5	$3,278.5r	6.3
INITIAL CLAIMS, UNEMPLOYMENT (6/23) thous.	365	359	5.2

Sources: Standard & Poor's, Moody's, *Journal of Commerce* (index: 1980 = 100), Dun & Bradstreet (failures of large companies), Federal Reserve Board, Labor Dept. CIBCR seasonally adjusts data on business failures and real estate loans.

MONTHLY ECONOMIC INDICATORS

	Latest month	Month ago	% Change year ago
BUSINESS WEEK PRODUCTION INDEX (June)	180.5	178.6r	3.5
BUSINESS WEEK LEADING INDEX (June)	215.3	213.8r	1.7
EMPLOYMENT, CIVILIAN, MILLIONS, (June)	118.4	118.4	0.7
UNEMPLOYMENT RATE, CIVILIAN (June)	5.2%	5.3%	–1.9

Sources: BW, CIBCR, BLS

MONETARY INDICATORS

	Latest week	Week ago	% Change year ago
MONEY SUPPLY, M1 (6/25)	$808.8	$807.5r	5.2
BANKS' BUSINESS LOANS (6/27)	322.0	323.3r	1.9
FREE RESERVES (6/27)	640	–265r	4.2
NONFINANCIAL COMMERCIAL PAPER (6/27)	148.9	152.0	17.9

Sources: Federal Reserve Board (in billions, except for free reserves, which are expressed for a two-week period in millions).

MONEY MARKET RATES

	Latest week	Week ago	Year ago
FEDERAL FUNDS (7/10)	8.34%	8.35%	9.31%
PRIME (7/11)	10.00	10.00	11.00
COMMERCIAL PAPER 3-MONTH (7/10)	8.15	8.14	8.75
CERTIFICATES OF DEPOSIT 3-MONTH (7/11)	8.26	7.76	8.71
EURODOLLAR 3-MONTH (7/4)	8.19	8.25	9.16

Sources: Federal Reserve Board, First Boston

# Raw data in the production indicators are seasonally adjusted in computing the BW index (chart); other components (estimated and not listed) include machinery and defense equipment.
1 = Western Wood Products Assn. 2 = Southern Forest Products Assn. 3 = Free market value NA = Not available r = revised NM = Not meaningful

NORTHWEST BEATS THE TOP FIVE U.S. AIRLINES IN ON-TIME PERFORMANCE.

YOU COULD SAY WE'VE ARRIVED.

The latest results have arrived. And so have we. For the sixth straight month, Northwest has finished ahead of the top five U.S. airlines in on-time performance. And because of service like this, more people are choosing to fly with us than ever before. So why waste time with anyone else? Call your travel agent or Northwest at 1-800-225-2525.

Source: Department of Transportation Air Travel Consumer Report, 1990. © 1990 Northwest Airlines, Inc

NORTHWEST AIRLINES

Now get even lower monthly payments with the Summer SMARTLEASE℠ Special

This summer, SMARTLEASE by GMAC can put you and GM quality on the road.

Now it's smarter than ever to get on the road with GM quality through GMAC's Summer SMARTLEASE Special. SMARTLEASE can be more affordable than purchasing to begin with. And now special support from each GM vehicle division makes SMARTLEASE payments even lower on select new GM cars and trucks.

At GMAC, we're helping to put GM quality on the road. Expiration dates vary. See your participating GM Dealer for dates and qualification details of the Summer SMARTLEASE Special on these new 1990 and '91 GM vehicles:

- Chevrolet Lumina (excludes APV) • Pontiac Grand Prix • Buick Regal
- Oldsmobile Cutlass Supreme • Chevrolet S-10 Blazer, 2- & 4-wheel drive
- GMC S-15 Jimmy, 2- & 4-wheel drive • All Cadillacs (1990 models only)

CHEVROLET • PONTIAC • BUICK • OLDSMOBILE • GMC TRUCK • CADILLAC

SMARTLEASE℠

by GMAC

© 1990 GMAC All Rights Reserved

BusinessWeek

-IN-CHIEF: Stephen B. Shepard
ING EDITOR: John A. Dierdorff
: William Wolman
NT MANAGING EDITORS:
laughan, Mark Morrison, Anthony J. Parisi
RECTOR: Malcolm Frouman
EDITORS: Bob Arnold, Nancy Cardwell, Robert J. Dowl-
uart Jackson, Richard F. Janssen, Geoff Lewis, Sally
Ciro Scotti, Lee Walczak (Washington), G. David Wal-
eymour Zucker
IAL PAGE EDITOR: John E. Pluenneke
F CORRESPONDENTS: Keith G. Felcyn
ATIONAL EDITION EDITOR: Frank J. Comes
WRITERS: Anthony Bianco, John A. Byrne, Judith H.
nski, John Hoerr, Gene G. Marcial, Bruce Nussbaum,
earson, Otis Port, Chris Welles, Brenton Welling
ATE EDITORS: Duane E. Anderson, Robert Barker, Eliza-
nrlich, Marc Frons, William J. Holstein, Jeffrey M. Lader-
Villiam D. Marbach, Mark N. Vamos
OR, EDITORIAL SYSTEMS & OPERATIONS: Thomas J. Reed
SYSTEMS MANAGER: Richard I. Ulman
E EDITOR: Lawrence Lippmann
MICS: James C. Cooper (Business Outlook editor), Kath-
adigan (Assoc.). Karen Pennar (Economics editor), Chris-
Farrell (Assoc.), Michael J. Mandel (Assoc.). Gene Koretz
mic Trends editor). William Glasgall (International)
TMENT EDITORS: Books: Denise Demong. Corporate Fin-
arry Light, David Zigas (Assoc.). Industries: Thane Peterson
ation Management: Jeffrey Rothfeder. Information Pro-
g: John W. Verity. International Edition: Elizabeth Weiner
ational News: Peter Galuszka. Investment Banking: Jon
n. Labor: Aaron Bernstein. Legal Affairs: Michele B. Galen.
ing: Christopher Power, Amy Dunkin (Assoc.). Markets &
ments: Gary Weiss. Media: Susan Duffy. Money & Banking:
eehan. News: Harris Collingwood. People: Peter Finch. Per-
Business: Donald H. Dunn. Science: Emily T. Smith. Score-
: Robert Mims. Telecommunications: Peter Coy. Transpor-
Michael Oneal
EDITORS: Brian Bremner, Deidre A. Depke, Naomi Freundlich,
Hager, Fred F. Jespersen, Mark Landler, Leah J. Nathans,
Reed, Monica Roman, Andrea Rothman, Troy Segal, Suzanne
ANT EDITOR: Laura Zinn
DITORS: Harry Maurer (Deputy chief), Michael Mercuno, Joan
(Asst. chiefs); Marc Miller, Jack Robbins, Jim Taibi (Sr. Copy
, Tim Belknap, Pam Black, Prudence Crowther, Carl Desens,
Green, Aleta Kaufman, Cynthia McClean, David Pengilly, Malka
Barbara Tierney; Dalia Kandiyoti, Kim Jacobs, Aida Rosario,
a Stead (Researchers)
ICTION COPY EDITORS: Donald Halsband (Chief), Hallberg
ndsson, Robert S. Norman; Celine Keating, Karen Leiner, Ste-
Romanoff
aura Baer, Steven Taylor (Deputy directors), Jen Hansen, Eric
berg (Assoc. directors), Pamela Harris, Craig Socia (Asst. direc-
Graphics: Arthur Eves (Director), Joan Danaher (Deputy direc-
ob Doyle (Sr. Illustrator), Laurel Daunis, Ray Vella (Illustrators)
ction: Mary Lee Schneider (Mgr.), Stephen J. Romeo (Asst.
S: Sue Bloom (Deputy Picture editor), Scott Miyn (Assoc. Pic-
itor), Todd James, Anne Murray, Ronnie Weil (Asst. editors)
en Daly (Researcher). Bettina Baudoin (Researcher - Paris)
lark (Traffic), Lawrence Crowe (Libranan)
RIAL OPERATIONS: Albert E. Baker, Richard Balestrino, A. Pe-
m, Yvonne Rodriguez, Claire Worley (Production managers)
s R. Dowd, Sharon L. Eng, Fidel Lee, José L. Martin, Jane M
on, Craig Sturgis, Karen Turok, Ilse V. Walton, Nicholas White
p editors), Felix Lindicy (Makeup asst.). Donald C. Pearson
manager), Dale I. Arnold, Edgardo Torres (Production assts.)
SPONDENTS: Jerome Zukosky (Deputy chief). Atlanta: Chuck
s (Mgr.), Walecia Konrad. Boston: Keith H. Hammonds (Mgr.),
Jereski, Gary McWilliams. Chicago: James E. Ellis (Mgr.), David
g, Kevin Kelly, Julia Flynn Siler, Lois Therrien. Cleveland: Za-
Schiller (Mgr.), Maria Mallory, Stephen Phillips. Connecticut:
Vogel (Mgr.), Lisa Driscoll. Dallas: Wendy Zellner (Mgr.), Jim
. Denver: Sandra D. Atchison (Mgr.), William C. Symonds (Sr
pondent). Detroit: James B. Treece (Mgr.), David Woodruff
on: Mark Ivey (Mgr.). Los Angeles: Ronald Grover (Mgr.),
Armstrong (Sr. Correspondent), Kathleen Kerwin, Eric Schine
: Gail DeGeorge (Mgr.), Antonio N. Fins. Minneapolis-St. Paul:
l Mitchell (Mgr.). Philadelphia: Joseph Weber (Mgr.). Pitts-
: Gregory L. Miles (Mgr.), Michael Schroeder San Francisco:
O'C. Hamilton (Mgr.), Richard Brandt, Barbara Buell, Robert Hof,
Shao. Seattle: Dori Jones Yang (Mgr.) Washington: Stephen
dstrom (Sr. News Editor), Stan Crock (News Editor), Amy Borrus,
Cahan, John Carey, Paula Dwyer, Dean Foust, Susan Garland,
d Gleckman, Dave Griffiths, Douglas A. Harbrecht, Bill Javetski,
Lewyn, Paul Magnusson, Mike McNamee, Seth Payne, Tim
Catherine Yang Bonn: John Templeman (Mgr.), Gail Schares
els: Jonathan Kapstein (Mgr.). Hong Kong: Dinah Lee (Mgr.),
Engardio . London: Richard A. Melcher (Mgr.), Mark Maremont
o City: Stephen Baker (Mgr.). Moscow: Rose Brady (Mgr.)
Stewart Toy (Mgr.), Jonathan B. Levine, Blanca Riemer Rome:
Rossant (Mgr.). Sao Paulo: Jeffrey Ryser (Mgr.) Tokyo: Robert
Mgr.), Neil Gross, Ted Holden
RIAL SERVICES: Broadcasting: Ray Hoffman Business
ger: Barbara Boynton Information Services: Jude Hayes
or), Judi Crowe (Asst. editor), Dana Gordon, Fred Katzenberg,
Khatami, Rex Long. Public Relations: Christine Summerson,
hine Coppola. Reprint Permission: Vivian J. K Betton
ms: Roger Brayer, Courtenay Eddy

SHER: John W. Patten
P, DIRECTOR OF MARKETING: John J. Bedell
P, OPERATIONS: Gary B. Hopkins
INTERNATIONAL: Gerd Hinske, Earl S. Moore, Jr.
PLANNING & DEVELOPMENT: Barbara Munder
IRCULATION: Kitty Carroll Williams
SALES: Constance E. Bennett (San Francisco), John R. Camp-
Stamford), Charles W. Hennessy (Philadelphia), Irwin Kornfeld
York), Thomas O. McDonough (Chicago)
CTOR, ADVERTISING BUSINESS: Linda F. Carvalho
CTOR, PRODUCTION: Mario J. Talluto

Readers Report

BRAVOS FOR RON BROWN

Considering the pioneering role that Ron Brown has been called upon to undertake as the first black to head a major political party, the American public deserves a more balanced picture of the record ("Ron Brown may be just what the Democrats don't need," Top of the News, June 18).

First, a leader must be judged by results. The Democrats' clean sweep of state and local elections in 1989, including such major victories as those of Doug Wilder in Virginia and Jim Florio in New Jersey, speaks for itself. Second, Ron Brown's initiative in involving the people and resources of the Democratic National Committee in local electoral races was an important element in the victories.

Your article attributes part of the party's difficulty in fund-raising to strained relations with the Jewish community resulting from Ron Brown's link to Jesse Jackson. This is simply wrong. Ron Brown has demonstrated, through repeated actions, that he makes up his own mind, as his public positions supporting Mayor Daley in Chicago and condemning Representative Savage attest. The Jewish community, like any other American ethnic group, reflects a wide diversity of opinions. Moreover, the party's financial base has many components besides Jewish supporters.

L. Ronald Scheman
Kaplan Russin & Vecchi
Washington

Editor's note: This letter was also signed by Jerome Berlin, Monte Friedkin, Steve Grossman, Robert E. Rubin, Dick Stern, and Maurice Tempelsman, who along with Scheman are members of the Democratic Party Trustee's Council.

As a recent candidate for mayor of the city of New Orleans who was subjected to a variety of racist and anti-Semitic attacks, I can attest to Ron Brown's constructive role during the campaign. Ron Brown has repeatedly denounced anti-Semitism, regardless of the color or rank of the person engaged in such reprehensible conduct.

Ron Brown has a solid record that generates strong feelings of affinity with the Jewish community. I am optimistic about the prospect of a strengthened relationship between Jews and blacks in the days ahead.

Donald R. Mintz
New Orleans

CLEARING THE AIR AT UNITED

Your article on the UAL buyout, "Why this UAL buyout just may sprout wings" (Top of the News, June 18), contains a couple of misleading statements.

[According to *Aviation Daily*], American Airlines does not really have a "solid market-share lead over United." American's share of U. S. revenue passenger miles for the first four months of 1990 was 16.88%, and United's was 16.34%.

Also, United Airlines does not have "an ancient fleet of DC-10 aircraft." DC-10s represent only about 12% of United's total fleet, and they are, on average, 10 to 15 years old. This is not old by modern standards and compares favorably with many other domestic carriers.

Ashley Ellott
Long Beach, Calif.

NESTLE'S STOCKHOLDERS GIRD THE GLOBE

You stated in "The stateless corporation" (Cover Story, May 14) that only a "few" Nestlé shares are held outside of Switzerland. Actually, over half of our shares are held by non-Swiss institutions and individuals.

F. X. Perroud
Assistant Vice-President
Nestlé
Switzerland

ONE NUKE PLANT THAT NEEDS TO STAY ON-LINE

Your article "Used nuke plant, good condition, all offers considered" (Top of the News, May 21) described a number of uses for Hanford's Fast Flux Test Facility (FFTF), which the Energy

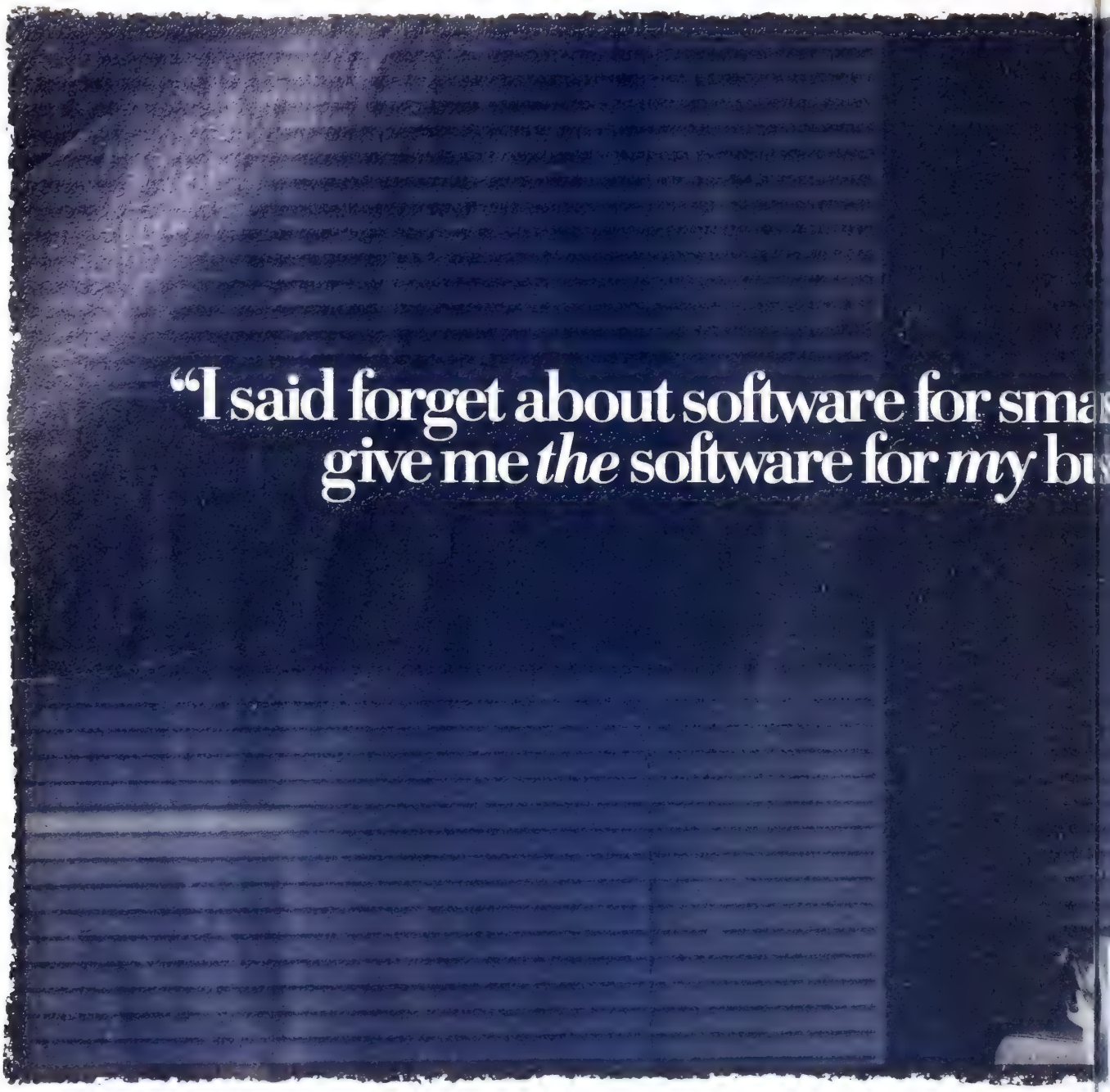
BUSINESS WEEK
JULY 23, 1990 ***3170
ISSN 0007-7135

Published weekly, except for one issue in January, by McGraw-Hill, Inc. Founder: James H. McGraw (1860-1948).
Executive, Editorial, Circulation, and Advertising Offices. McGraw-Hill Building, 1221 Avenue of the Americas, New York, N.Y. 10020. Telephone: (212) 512-2000. Domestic Telex: 12-7960; International Telex: 232365; Cable. McGraw-Hill New York; TWX: 710-581-4879.
U.S. subscription rate $39.95 per year; 2 years, $69.95; 3 years, $94.95. Single copies, $2. Write for rates in other countries.
Business Week Subscriber Services: 1-800-635-1200.

European Circulation Center, McGraw-Hill House, Maidenhead, Berks, England. Telephone (0628) 23431, Telex 848640.
Postmaster: Please send address changes to BUSINESS WEEK, P.O. Box 430, Hightstown, N.J. 08520. Second-class postage paid at New York, N.Y., and at additional mailing offices. Postage paid at Montreal, P.Q. Registration Number 9010. Copyright © 1990 by McGraw-Hill Inc. All rights reserved. Title registered in U.S. Patent Office.

Officers of McGraw-Hill, Inc.: Joseph L. Dionne, Chairman, President and Chief Executive Officer; Robert N. Landes, Executive Vice President, General Counsel, and Secretary; Harold W. McGraw, III, Executive Vice President; Frank D. Penglase, Senior Vice President, Treasury Operations.

PHOTOCOPY PERMISSION: Where necessary, permission is granted by the copyright owner for those registered with the Copyright Clearance Center (CCC), 27 Congress St., Salem, Mass. 01970, to photocopy any article herein for the flat fee of $1.50 per copy of each article. Send payment to the CCC. Copying for other than personal or internal reference use without express permission of McGraw-Hill is prohibited. Address requests for customized bulk reprints to Business Week Reprints, P. O. Box 457, Hightstown, N. J. 08520, or call 609 426-5494. ISSN 0007-7135/90/$2.00



An IBM AS/400 mid-range computer runs over 5000 applications to help you run your kind of business.

The last thing a small business needs is a computer solution based on the idea of smallness.

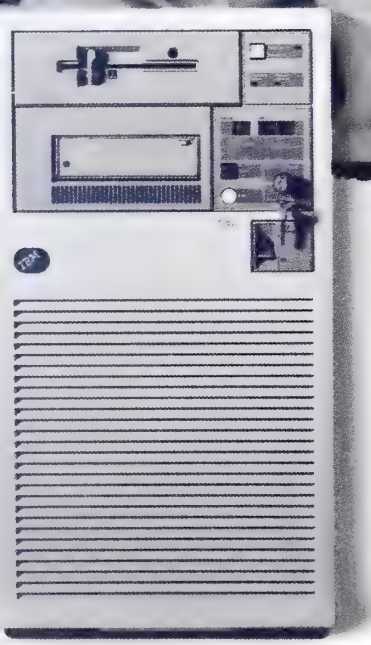
Yet you hear things like, "It's the perfect inventory package for small business," as if inventories of car dealers, grocery stores and real estate brokers had much in common.

So, when we talk about our Application System/400, the question "What do you do?" comes way before "How big are you?"

The IBM AS/400 runs over 5,00 applications, so the first order of business is choosing the one that best for you.

Retailers, manufacturers, distributors, law firms, banks, school boards, you name it, can all find powerful, proven AS/400 software designed to meet their special needs.

siness,
s."



The AS/400 Model C10 is just over 2 feet tall.

And no matter how big your AS/400 gets (from a few users to hundreds), the software you started with will always be able to serve you.

What's more, an AS/400 is easy: to learn, to use and (starting around $25,000) to pay for. Which helps to explain why in a major survey of midrange system owners, the AS/400 users showed the highest level of satisfaction.*

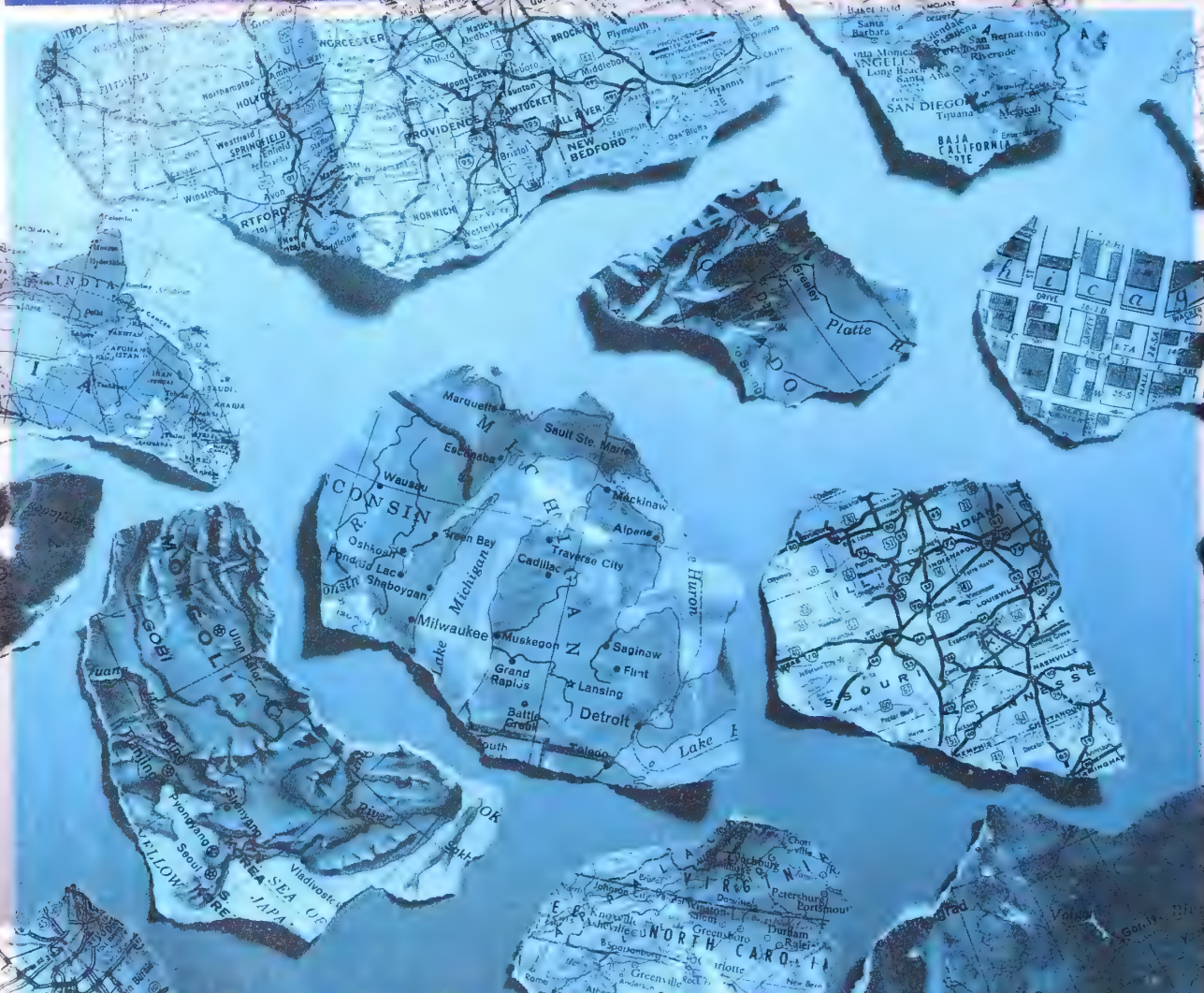
To learn more, call us at **1-800-365-4 IBM.**

The IBM AS/400. It's the solution that recognizes what all small businesses have in common. They're all different.

IBM

BusinessWeek

THERE IS NO SECOND PLACE.


Platte
Sault Ste. Marie
Mackinaw
Alpena
Traverse City
Cadillac
Green Bay
Oshkosh
Lake Michigan
Milwaukee
Muskegon
Saginaw
Flint
Grand Rapids
Lansing
Detroit
Lake Huron
Lake E
Wausau
Eau Claire
Sioux City
Des Moines
Omaha
Lincoln
Kansas City
Springfield
Cape Girardeau
Nashville
Knoxville
Chattanooga
Memphis
Jackson
Little Rock
Tulsa
Oklahoma City
Amarillo
Lubbock
Abilene
Dallas
Fort Worth
Waco
Austin
San Antonio
Corpus Christi
Laredo
Brownsville
Houston
Galveston
Beaumont
Lake Charles
New Orleans
Baton Rouge
Shreveport
Monroe
Alexandria
Lafayette
Tallahassee
Jacksonville
Orlando
Tampa
Miami
Key West
Pensacola
Mobile
Birmingham
Atlanta
Columbus
Macon
Savannah
Charleston
Columbia
Charlotte
Raleigh
Durham
Greensboro
Norfolk
Richmond
Petersburg
Portsmouth
Roanoke
Knoxville
Asheville
Johnson City
Lexington
Louisville
Evansville
Indianapolis
Fort Wayne
Toledo
Cleveland
Akron
Canton
Youngstown
Columbus
Dayton
Cincinnati
Pittsburgh
Harrisburg
Baltimore
Washington
Philadelphia
Wilmington
Dover
Atlantic City
Trenton
Newark
Jersey City
Paterson
Elizabeth
Hartford
New Haven
Bridgeport
Stamford
Providence
Worcester
Springfield
Pittsfield
Boston
Lowell
Lawrence
Lynn
Brockton
Fall River
New Bedford
Hyannis
Portland
Bangor
Augusta
Lewiston
Burlington
Montpelier
Concord
Manchester
Portsmouth
Albany
Syracuse
Rochester
Buffalo
Utica
Binghamton
Ithaca
Elmira
Scranton
Wilkes-Barre
Allentown
Reading
Lancaster
Harrisburg
Pittsburgh
Erie
Scranton

t. plans to shut down. However, the onal impact of shutting down the fa- y was not sufficiently emphasized. mination of FFTF will have a signifi- t impact on U. S. capabilities for med- isotope production, materials testing, lear-waste deactivation, weapons tralization, and other areas.

TF is a valuable national asset with que capabilities unmatched world- e. Termination of FFTF would have an erse economic impact and would be a take with significant national and in- ational consequences.

James N. Paglieri
Richland, Wash.

ERE ISN'T MUCH JUNK AETNA'S PORTFOLIO

While we support the thoughtful efforts of the National Association nsurance Commisioners (NAIC) to reg- e insurers' solvency, your article on NAIC's review of insurers' bond hold- s ("For the junk market, no news but news," Finance, May 7) misled your lers about the quality of Aetna's in- tments.

ou used the term "junk bonds" to cribe a number of very different bond investments. High-yield bonds are but one kind of investment in the broad category of public and private debt known as "below investment grade."

More typical below-investment-grade investments are private placements made with small growth companies. Unlike high-yield bonds, these investments often have significant protective covenants or are secured by assets pledged to the investor in the event of default. This has been where insurers generally, and Aetna particularly, have been skilled investors. The below-investment-grade category would also include "fallen angels," or bonds purchased as investment-grade that have been downgraded.

At yearend 1989, Aetna's total investment in high-yield bonds was $308 million, or less than one-half of 1% of our total invested assets of $78 billion. The high quality of our investments is reflected by an overall rating of A-plus for our bond portfolio.

Philip R. Roberts
Senior Vice-President, Investments
Aetna
Hartford

CORRECTIONS & CLARIFICATIONS

In "Travelers shrinks its horizons" (In Business This Week, July 2), we stated that 26% of Travelers Corp.'s personal-lines premiums comes from the nine states where the insurer will cease to offer those lines. The correct number is 2.6%.

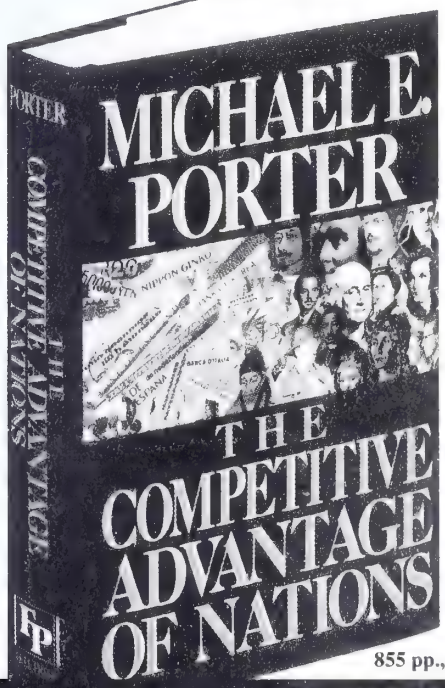
MERRY-GO-ROUND MAY GRAB THE BRASS RING

In "Why is Boogie making tracks?" (Top of the News, June 25), a quote attributed to me said of Merry-Go-Round: "It's not a bargain." I may have said that Merry-Go-Round isn't the bargain it was in 1988 and early 1989, when it sold at 10 times earnings, but I pointed out its strong management, favorable growth prospects, and discounted valuation compared to other leading retailers.

R. Hutchings Vernon, CFA
T. Rowe Price
Baltimore

Letters to the Editor should be sent to Readers Report, Business Week, 1221 Avenue of the Americas, New York, N. Y. 10020. Fax: (212) 512-4464, Telex: 12-7960, Intl. 4998204. All letters must include an address and daytime and evening telephone numbers. We reserve the right to edit letters for clarity and space.

Why much of what we "know" about global competition is wrong ... and where we go from here



855 pp., $35.00

Harvard Business School's "apostle of competition" reveals why America lost its edge in this visionary classic. Based on dramatic new data uncovered by research teams who examined more than 100 industries in 10 leading nations, **The Competitive Advantage of Nations** is nothing less than a complete, brilliant model—so new it changes the game and the field it's played on.

*"**Rich in lessons** about why and how industries, regions, and nations succeed or fail."* — **Business Week**

From The Free Press
Clip or copy this coupon and fax or mail to:

The McGraw-Hill Bookstore, 1221 Avenue of the Americas
New York, NY 10020 TEL: 212-512-4100 FAX: 212-512-4105
Fax or phone orders delivered within 10 days!

YES! Please rush me _____ copy(ies) @ $35.00 of Michael E. Porter's THE COMPETITIVE ADVANTAGE OF NATIONS

Also send me Porter's ❑ **COMPETITIVE STRATEGY** ($29.95)
❑ **COMPETITIVE ADVANTAGE** ($32.95)

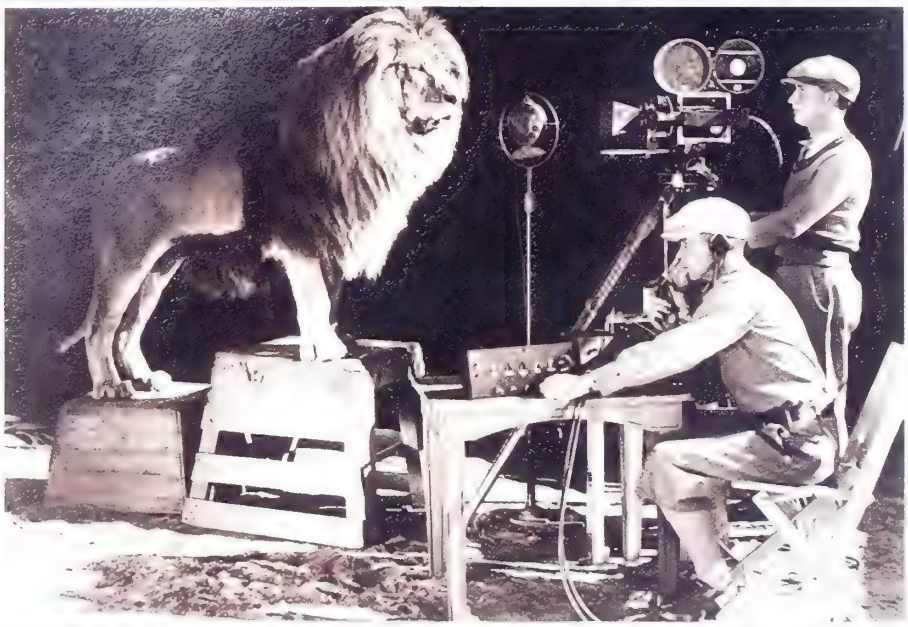
Check, money order, or credit card only: ❑ Visa ❑ MasterCard ❑ American Express
Acct. # _____ Exp. date _____
Name _____
Address _____
City/State/Zip _____

Please add applicable sales tax plus $2.50 for U.S. postage and handling. BW790

The McGraw-Hill Bookstore—Serving Today's Professionals

FADE OUT: THE CALAMITOUS FINAL DAYS OF MGM
By Peter Bart
Morrow • 304pp • $19.95

WHO SHOT LEO THE LION?



RECORDING THE ROAR IN 1929: KIRK KERKORIAN HAS EXPLOITED THE MGM LOGO TO THE HILT

As a 16-year-old, long before he became one of the richest men in America, Kirk Kerkorian helped clear the Metro-Goldwyn-Mayer lot in Culver City, Calif. It was during the Depression. He was Kerkor Kerkorian then, son of an Armenian immigrant fruit farmer in San Jose, Calif. To make way for the studio lot, he hauled rocks from a field for 40¢ an hour.

In the years that followed, Kerkorian would make millions—by flying surplus Air Force planes across the Atlantic, by ferrying air passengers to Las Vegas, and finally by owning casinos. And whether or not his youthful rock-toting had anything to do with it, he developed a fascination with the MGM name. In 1970, he bought control of the studio for $100 million. Five years later, he created and then spun off a subsidiary that operated the MGM Grand casino (now the Bally Grand) in Las Vegas. Then, three years ago, he started the luxury MGM Grand Airlines, which pampers wealthy travelers between Los Angeles and New York. Today he owns the airline, the MGM/UA film company, and the MGM Marina casino in Las Vegas.

For all of his association with the MGM name, however, Kerkorian has remained a Hollywood outsider. He seems more captivated by buying companies than by making movies. He made a run at Columbia Pictures in 1978 and six years later joined with Saul Steinberg in an abortive attack on Walt Disney Productions. Meanwhile, he let the MGM studio suffocate under a mountain of debt. And to fund his other endeavors, he sold off MGM's lot—plus Dorothy's ruby slippers, Ben Hur's chariot, and MGM's famed library of classic films.

Peter Bart joined MGM in 1983 as a production executive during one of the short-lived regimes that Kerkorian periodically installed to revive MGM. An independent film producer, Bart had learned the movie business at Lorimar Telepictures and Paramount Pictures, where he worked on, among other projects, *The Godfather*. In *Fade Out: The Calamitous Final Days of MGM*, Bart, now editor of *Variety*, describes the procession of Hollywood heavyweights who failed to save Leo the Lion from the hole Kerkorian dug for him. (Despite Bart's title, however, the company isn't dead, yet.)

Bart vividly captures the drama—and the cast—of his two years with the company. Here is Frank Yablans, son of a Brooklyn cabbie, forced out of Paramount after making such blockbusters as *Love Story* and *The Godfather*. Short, pugnacious, and given to profanity, Yablans is head of production at MGM for only two years, done in by such big-budget failures as *Red Dawn* and *Garbo Talks*. As chairman, lawyer-turned-mogul Frank Rothman runs the studio at half-speed, keeping a lid on costs as Kerkorian tries to sell it. Rock promoter and moviemaker Jerry Weintraub, another production chief, is dispatched for spending too much money and making too few movies.

Bart, clearly embittered by Kerkorian's erratic management and halfhearted efforts to save MGM, writes with a certain venom as he shows money being thrown around wildly—especially when there is a friend nearby to catch it.

There's lots of good storytelling here. Thanks to Bart's insider's perch, his book drips with details about the people who make movies, the money they spend, and the stars they pursued but failed to sign. Yet *Fade Out* often rambles and occasionally reads with the density of the credits at the end of a blockbuster movie. And the construction is maddening, flipping between the 1970s and 1980s for no apparent reason.

Where Bart really falls short is in his examination of Kerkorian—admittedly one of America's most reclusive men. Bart notes correctly that the MGM owner "never saw himself as a 'builder' but rather as a 'trader.' The only acquisition that he would zealously cling to over the years would be the MGM trademark—not the studio [which he is trying to sell], not its pictures or traditions, but its treasured logo, which seemed to carry its own special value in his mind."

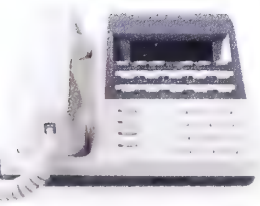
But Bart doesn't illuminate why Kerkorian does what he does. He offers a few new anecdotes about Kerkorian's gambling habits, but the financier never comes alive. Bart seems content with his conviction that the MGM boss lives simply to be a trader and is not a manager. "The longer you stay, the more the odds work against you," the billionaire tells a studio executive one time in Las Vegas. "Three passes and I'm out."

That's the way Kerkorian is still playing. He is poised to sell the studio, MGM/UA Communications Co., to Italian media mogul Giancarlo Parretti, the one-time waiter who has built an international empire. Parretti is the third would-be buyer, and the deal has already hit one financial snag after another. But it may yet go through. And Kerkorian already has started some new projects. He is building a second MGM casino and an MGM movie theme park in Las Vegas. Hemay have torn the studio apart, but Kerkorian still has his treasured MGM logo—and lots of places to post it.

BY RONALD GROVER

Los Angeles Bureau Chief Grover is at work on a book on Walt Disney Co.

The results of our phone survey are in.



If you and your phone system aren't speaking, talk with Fujitsu Business Communication Systems. We found in recent independent studies that Starlog,™ our small business voice and data communication system, has everyone talking. In fact, 86% of users surveyed rated its performance as good to excellent. Moreover, the Starlog achieved a higher performance rating than the industry leader received for its comparable system. Better yet, most felt the Starlog system made their businesses significantly more efficient. Maybe that's why in 1987 Fujitsu Business Communication Systems was the #2 provider of small business communication systems in the U.S. And we're backed by Fujitsu Ltd., a $16 billion global computer and telecommunications leader who's been around for over 50 years. To find out more about the Starlog, call or write us at 3190 Miraloma Ave., Anaheim, CA 92806. 1-800-654-0715. Pretty soon, you'll be talking like a satisfied customer too.

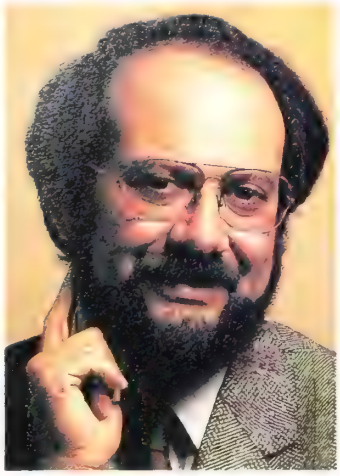
FUJITSU

FUJITSU BUSINESS
COMMUNICATION SYSTEMS

© 1989, Fujitsu Business Communication Systems. Starlog is a trademark of Fujitsu Business Communication Systems.

THE REAL CULPRIT IN THE THRIFT DEBACLE: DEREGULATION

BY ROBERT KUTTNER



The catastrophe should have discredited once and for all the idea that a banker is just like a haberdasher. Yet despite the wreckage of S&Ls and the junk-bond market, the melody of deregulation lingers on

There is great ideological and partisan confusion about who or what wrecked the savings and loan industry and what conclusions to draw. Democrats find it awkward to point the finger at Republicans, since both parties' fingerprints are all over the scandal. Therefore, the mess seems everybody's fault—and nobody's. But make no mistake: Partisanship aside, the S&L mess was brought to you by deregulation. No other nation is undergoing a thrift-industry scandal today, because none went to our extreme of deregulation. Republicans at least embraced deregulation out of ideological principle; Democrats did it mainly because they were on the take.

In retrospect, it is remarkable that intelligent people believed deregulating the S&Ls was a good idea. The business of banking is intimately tied to the government. And S&Ls are just a special category of bank. Banks' ability to make loans and create credit, for example, depends on government policies, including the ratio of reserves that banks are required to keep on hand against their loans, and on the government's monetary policy.

Further, banks do not operate in the economist's environment of perfect competition. Entry into the marketplace is restricted, and so is the ability to fail. People who want to open a bank or S&L must satisfy certain financial requirements, and if a community is deemed to be "over-banked," they won't get a charter. Banks are supervised by government examiners, they enjoy deposit insurance, and they may receive advances or loans from the central banking system. So banks are not exactly creatures of the free market.

TEXTBOOK CASE. Notwithstanding all these links, it was fashionable a decade ago to insist that banks were really just another business. Financial economists treated "innovation" as unambiguously good, as if any new scheme dreamed up by promoters was by definition virtuous. Some people even called for 19th century-style "free banking," in which government would get out of the business of printing money or supervising banks and leave credit creation entirely to bankers. In theory, informed consumers would differentiate between institutions that made risky loans and ones that made prudent investments; high rollers would have to compensate for risk by paying higher interest rates; it would all equilibrate, just as in the textbook. All that was required was "perfect information" on the part of depositors. This is a premise that only an economist would propose with a straight face.

But in the late 1970s, lots of people actually believed this. Deregulation spawned more deregulation. Interest ceilings were lifted, allowing banks and S&Ls to compete for deposits by paying higher rates. This in turn generated pressure for more license on the asset side of the ledger: the ability to make more speculative loans. S&Ls also got the ceiling raised on insured deposits, so that little S&Ls could quickly grow into big ones by bidding for brokered money. This rapid growth in turn required easing reserve standards, so that hot S&Ls wouldn't be constrained by a small capital base. In sum, the regulators threw out the rule book. The miracle is that the house of cards stood as long as it did.

Logically, the S&L debacle should have discredited once and for all the idea that a banker is just like a haberdasher, only trading in different goods. Yet despite the S&L affair and the junk-bond collapse, the melody of deregulation lingers on. There is pressure now to break down the walls between banking and insurance, between banking and stock underwriting, between commercial banking and mortgage lending, and to lift the remaining constraints on regional banks in favor of a single national market.

BARGAIN PRICES. Meanwhile, the Resolution Trust Corp.—the agency created to manage the homes, condos, office complexes, shopping malls, resorts, and taco franchises that failed S&Ls left to the government—is continuing to worship at the altar of markets. The RTC is selling off the stuff as fast as it can, at bargain prices. It's doing this because in a free-market economy, the government isn't supposed to own or administer assets (it also produces a trickle of black ink to offset the flood of red). As writer William Greider recently observed, the government bought dear and is selling cheap. It bailed out S&L assets at their precollapse prices and is now selling out at the bottom of the market. This, Greider notes, is the beginning of the next phase of the S&L scandal, which will enrich yet another group of speculators at taxpayer expense.

Fifty years ago, the thrift industry provided a haven for small savers and a place to get mortgages. It didn't attract high rollers, and it didn't lose money. A recent study by John E. Rickmeier, editor of the *S&L-Savings Bank Financial Quarterly*, found that the thrift institutions that best rode out the storm of the 1980s were the "plain-vanilla" ones that stuck to their primary business of taking deposits and making home-mortgage loans. When historians tot up the pluses and minuses of the deregulation experiment, they'll find that all the benefits to entrepreneurial innovation were canceled out many times over by the cost of the S&L bailout. ■

ROBERT KUTTNER IS ECONOMICS CORRESPONDENT FOR *THE NEW REPUBLIC* AND AUTHOR OF *THE LIFE OF THE PARTY*

Thousands of spectators watch early round play on the outside courts of Wimbledon

The legend that grew from a lawn in Wimbledon.

In 1869, the All England Croquet Club established itself on four rented acres in Wimbledon. By 1875, the club had set aside a rectangle of grass for lawn tennis, which was growing in popularity. Two years later, the club had changed its name to the All England Croquet and Lawn Tennis Club.

That same year, some 200 spectators watched as 22 amateur players competed for a silver cup,

Members of the All England Croquet Club pose for a photograph in 1870.

which was awarded to Spencer Gore, the first Wimbledon champion.

Today, that legendary lawn has expanded to 42 acres with 18 courts, each holding revered memories. And none is more storied than Centre Court.

It is here the world's finest players meet each summer for two weeks of fierce competition. The best of the best are distinguished forever as Wimbledon champions.

About 400,000 fans fill the grounds for the fortnight of play, while invited aristocrats, diplomats and celebrities view from the Royal Box.

In a setting where stamina and grace under pressure are respected, a timepiece must meet intimidating standards.

Strawberries and cream, one of the traditions at the Championships

That explains the Rolex on the scoreboard, as well as its designation as the Official Timepiece of the Wimbledon Championships.

ROLEX

Rolex Lady Oyster Perpetual and Men's Oyster Perpetual Datejust in stainless steel and 18kt gold with matching Jubilee bracelets and diamond dials
Write for brochure. Rolex Watch U.S.A., Inc., Dept. 891, Rolex Building, 665 Fifth Avenue, New York, N.Y. 10022-5383

©1990 Rolex Watch U.S.A., Inc

Rolex, Oyster Perpetual Datejust and Jubilee are trademarks

Laser printing just got

OKIDATA introduces OKILASERS. A full line of business smart laser printers that's compatible with both HP® and your budget. Personal to PostScript®, OKILASERS deliver the same tank tough™ performance and reliability that OKIDATA has built into more than 3,000,000 printers. OKILASERS by OKIDATA . . . a printer for every business.

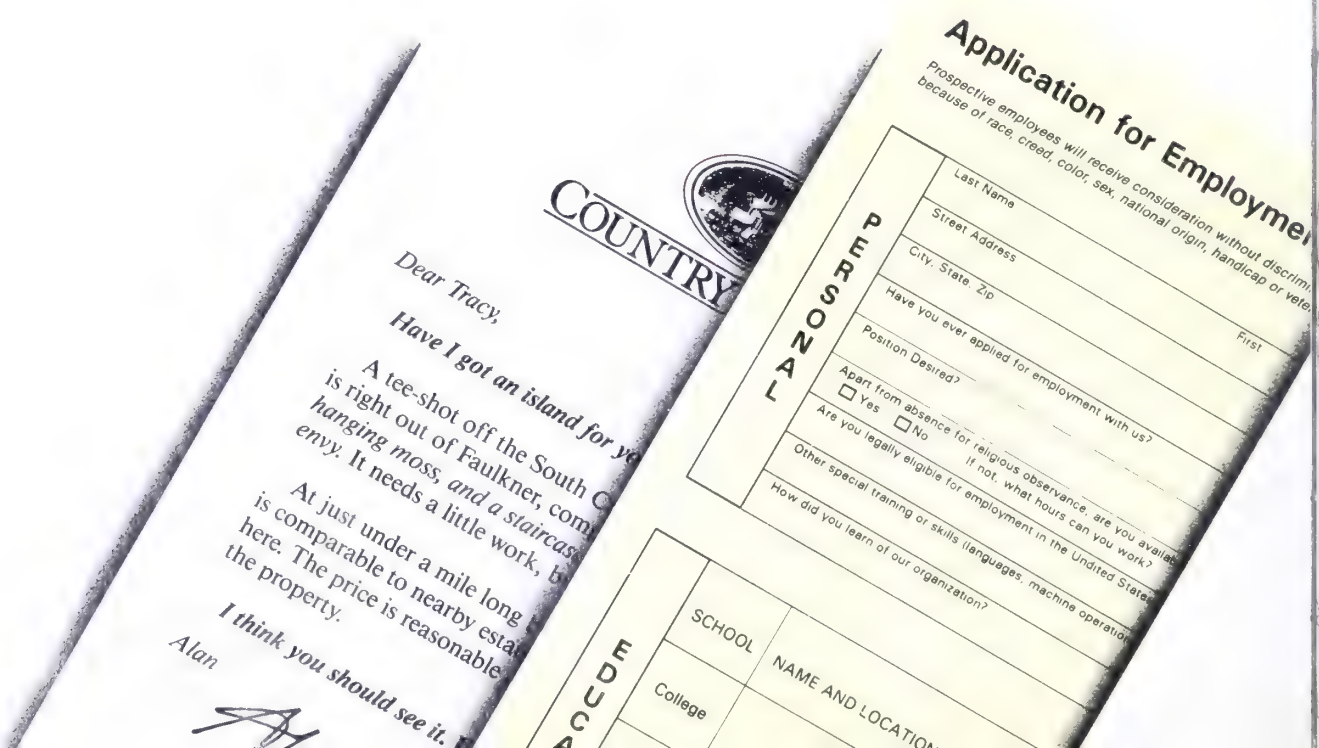
Call 1-800-OKIDATA for the tank tough dealer nearest you.

OKIDATA®
an OKI AMERICA company

We put business on paper.

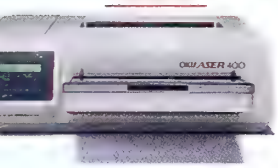
OKIDATA is a registered trademark of Oki America, Inc., Marque déposée de Oki America Inc. OKILASER™ is a trademark of Oki Electric Industry Co. Ltd. Tank tough™ is a trademark of Oki America, Inc.

HP, Adobe PostScript, Macintosh are trademarks of their respective corporations



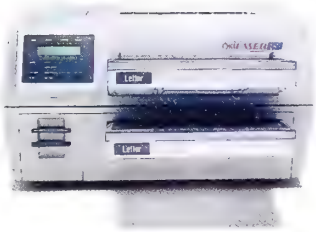
our times better.

PC MAGAZINE
EDITORS' CHOICE
June 12 1990
OkiLaser 400



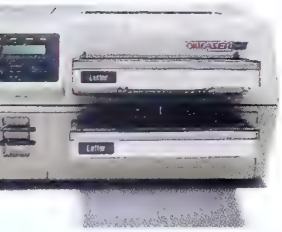
OKILASER™ 400

Small. Personal. Affordable. 4 pages per minute. 17 fonts. Holds 200 sheets. A genuine laser. A genuine bargain.



OKILASER™ 800

For heavy duty use. 8 ppm. 26 fonts. Expandable to PostScript® and dual bins. A real workhorse.



OKILASER™ 820

Prints up the side, across the other, drop shadows, stretch letters, outline, fill, and sets fonts up to 2″ instantly, 8 ppm.

OKILASER™ 840

True Adobe PostScript.® Perfect for desktop publishing on DOS or Macintosh® systems. 8 ppm.

EYE OPENING

820 makes presentations pop. And correspondences quake. from all angles. With messages of growing magnitude. Laser printing bliss. And then some.

Features

haracter outline

pattern filler

AFRICAN

It's a jungle out there. Desktop publishing has evolved and proliferated so much that the peripherals which make it possible have to be tough to survive in this market. And the tougher the market, the more demanding the tests, the more savvy users turn to the OKILASER™ 840 printer.

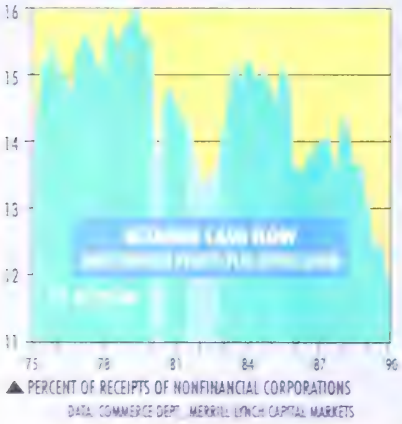
The OKILASER 840 from OKIDATA provides high performance Adobe PostScript® with 35 scalable fonts resident. Capabilities are unlimited with the power to perform

WHEN CASH FLOW IS LIGHT, DIVIDENDS TEND TO SHRINK . . .

While there are plenty of statistics pointing to the poor financial health of U. S. corporations, economist Bruce Steinberg of Merrill Lynch Capital Markets is particularly concerned about the recent behavior of retained cash flow—essentially, undistributed profits plus depreciation. Retained cash flow, he explains, "is the chief source of corporate investment funds; when it declines, capital spending tends to suffer."

That, in fact, seems to be the scenario now unfolding. Retained cash flow for nonfinancial corporations has been running below its year-earlier levels since 1988. More important, retained-cash-flow margins, which are cash flow as a percentage of corporate receipts, have sunk to their second-lowest level in 36 years.

THE SQUEEZE ON CORPORATE CASH FLOW



The factors behind this trend are hardly a mystery. The sluggish pace of business and a competitive climate that inhibits price increases have hurt corporate receipts at a time when flagging productivity is providing scant relief from rising labor costs. Interest expenses of nonfinancial corporations, which took off in the 1980s, jumped almost 11% in the first quarter and now absorb about 5.5% of corporate revenues. And the Tax Reform Act of 1986 sharply slowed the growth of depreciation allowances.

The resulting squeeze on cash flow already seems to be depressing capital spending. Factory shipments of nondefense capital goods, for example, have been down since February, suggesting no real growth in equipment investment in the second quarter. And orders for nondefense capital goods have fallen in four of the past five months.

One way to shore up retained cash flow, of course, is to rein in dividend growth, and that in fact seems to be happening. Standard & Poor's Corp. reports that the number of companies boosting dividends, which rose in 1989, is running 22% below last year's pace. Meanwhile, the number of companies omitting dividends is up more than 100%.

. . . AND WHEN THE DIVIDEND CROP IS SCANTY, WATCH OUT

If dividend growth is slackening, the stock market may not be far behind. A recent National Bureau of Economic Research working paper by economists Robert Barsky of the University of Michigan and Bradford De Long of Harvard University offers evidence that five of the six sustained market movements since 1900—including two of the three lengthy runups in stock prices and three dramatic price collapses—were apparently driven by shifts in investors' expectations of future dividend growth.

The one big market move that Barsky and De Long's dividend-based model fails to explain, of course, is the bull market of the 1980s. And the reason, the two researchers speculate, is that cash payments other than dividends have made up a large portion of shareholders' returns since 1982. In short, investors' attentions shifted to the hefty capital gains provided by stock buybacks, leveraged buyouts, and mergers.

Now, however, many observers believe the era of buyouts and leverage is finally drawing to a close. If this is the case, investor concern may well swing back to dividend growth. And the latest slowdown in such growth could turn out to be a harbinger of future malaise in the market.

WHY HIKING FEDERAL TAXES COULD PUT THE STATES IN A BIND

Drivers are not the only ones who will feel the pinch if Washington decides to raise federal gasoline taxes as part of a deficit-reduction package. The National Governors' Assn. estimates that a 25¢-per-gallon hike in the federal tax would cost the states nearly $13 billion in highway-investment funds over a five-year period.

The reason: Any significant rise in gasoline prices reduces consumption. Thus, NGA economists calculate the highway trust fund administered by the federal government would lose about $4 billion from a drop in projected fuel sales, while state fuel-tax funds would be out almost $9 billion. Since the existing federal and state funds are dedicated to upgrading the national highway system (though Congress has been slow to approve expenditures from the federal fund), the states are opposed to using fuel-tax increases as a source of general revenues for deficit-reduction purposes.

The issue underscores one of the ironies attendant on federal tax hikes: Many of the increases under consideration, such as higher liquor and tobacco taxes, impinge on revenue sources relied on by financially troubled state and local governments. Thus, closing the federal deficit tends to widen operating deficits at state and local levels, currently running at close to a $50 billion annual rate.

The upshot is that many states and cities may find that they have to raise taxes and cut services even more than they are already planning to in order to put their fiscal houses in order.

IS U.S. REAL ESTATE LEAVING THE JAPANESE COLD?

As if the U. S. real estate market hasn't got enough troubles, economist Deborah Allen of Claremont Economics Institute reports that the Japanese are losing interest in U. S. properties. Such investments, she says, soared between 1985 and 1988 for three main reasons: a 50% rise in the yen against the dollar, which made U. S. properties look dirt cheap; current-account surpluses generating up to $100 billion a year of funds available for foreign investment; and soaring property values in Japan that sent Tokyo prices as high as 40 times the prices of comparable properties in major U. S. cities.

Since 1988, however, the yen has lost 20% of its value against the dollar, and Japan's current-account surplus last year dropped by 30%. As a result, Japanese property investment in the U. S. fell 11% last year, and purchases of U. S. office buildings tumbled by 60%.

For the time being, Allen thinks Japanese interest in U. S. resort and residential properties, particularly on the West Coast, will remain strong. But she warns that Japanese purchases of all U. S. real estate could dry up entirely by 1995, as a weak yen and falling external surpluses continue to inhibit such overseas investment. ▪

The General Meeting of Banco di Napoli, held on 27th April 1990 ıder the chairmanship of Professor igi Coccioli, approved the Group's 89 accounts, which have been rtified by Price Waterhouse.

Total assets came to Lit. 85,128 lion, an increase of 13.6% over the 88 figure; loans and advances ıounted to Lit. 54,863 billion, a rise of 1%. There was a substantial increase 25.5% in lending by the special credit ctions. On the liabilities side, deposits ıd borrowed funds increased by .1% to nearly Lit. 70,000 billion.

The gross profit, net of the ditional specific allocation to the staff ension fund, amounted to Lit. 559 llion in 1989, 20.2% more than the 88 figure of Lit. 465 billion.

The additional specific allocation the staff pension fund over and ove the cost of the normal banking stem scheme amounted to Lit. 254 llion last year, compared with Lit. 206 llion in 1988.

If the above allocation is disregarded, e gross profit came to Lit. 813 billion in 89 and Lit. 671 billion in 1988.

The net profit for the year worked ıt at Lit. 104 billion, an increase of .5% over 1988; this result enables the Bank to pay holders of savings shares a preference dividend of 14%.

The reorganization of the domestic branch network continued last year. A plan to establish a network of mini-branches in areas in which the Bank is most strongly represented was prepared, and application has already been made to the Bank of Italy to authorize the opening of the first of these.

Banco di Napoli is further strengthening its presence abroad: new branches will open in Madrid and the Cayman Islands in 1990 to complement the existing foreign branches in New York, London, Frankfurt, Buenos Aires, Hong Kong and Paris.

Banco di Napoli International, which is based in Luxembourg, has enhanced its already high international standing, partly by means of a capital increase carried out in the first few days of 1990.

In addition to the improvements in the operational and strategic structure of the Banco di Napoli Group, a number of new shareholdings were acquired in Italy and abroad last year in order to give the Bank an entry to new markets; these included Reviban, Novafin Financière, Bancocitic Enterprise, Stoà and Sofimer.

HIGHLIGHTS OF THE 1989

ANNUAL ACCOUNTS AT 31st DECEMBER 1989 (in billions of lire)

	1982	1983	1984	1985	1986	1987	1988	1989
BALANCE SHEET								
Total assets	26.868	35.931	43.212	50.575	60.430	69.339	74.946	85.128
Loans and advances	14.211	19.952	26.022	33.606	41.062	46.103	50.271	54.863
Dep. and borrowed funds	21.743	30.031	36.401	44.124	51.785	59.122	62.620	69.587
Various provisions	918	1.260	1.744	2.235	2.792	3.317	3.571	3.880
(of which: funds earmarked for the staff)	480	614	887	1.288	1.672	1.935	2.107	2.287
Capital and reserves	505	614	612	622	1.129	1.170	1.200	1.236
PROFIT AND LOSS ACCOUNT								
Gross income	951	1.181	1.406	1.593	1.921	1.856	1.986	2.086
Operating profit	284	325	458	516	695	501	586	671
Gross profit	241	358	508	608	720	617	671	813
Additional allocation to staff pension fund	(51)	(58)	(128)	(179)	(197)	(184)	(206)	(254)
Gross profit net of above allocation	190	300	380	429	523	433	465	559
Other allocations	(183)	(292)	(367)	(412)	(468)	(371)	(391)	(455)
Net profit	7	8	13	17	55	62	74	104

Vith the single European market now in sight, Banco di Napoli's omprehensive network of branches forms a solid bridge etween Italy and Europe, and especially between Southern aly and the rest of the continent.

HE GROUP'S NUMEROUS COMPANIES PROVIDE CUSTOMERS VITH THE WIDEST RANGE OF FINANCIAL AND OTHER SERVICES.

452nd YEAR
Head Office: Naples 80132 - Via Toledo, 177/178
495 branches in Italy
Foreign branches in New York, Frankfurt, Buenos Aires, London, Hong Kong and Paris
Representative Offices: Bruxelles, Los Angeles, Moscow, Sophia, Zurich.
Subsidiary: Luxembourg - Banco di Napoli International.

Welcome to these *all suite* Hotels of L'Ermitage International

L'Ermitage Hotel de Grande Classe*
9291 Burton Way
Beverly Hills, California 90210
Daily rates from $275.

BelAge Hotel de Grande Classe*
1020 North San Vicente Boulevard
West Hollywood, California 90069
Daily rates from $235.

Mondrian Hotel de Grand Luxe
8440 Sunset Boulevard
West Hollywood, California 90069
Daily rates from $185.

Le Parc Hotel de Luxe
733 North West Knoll
West Hollywood, California 90069
Daily rates from $165.

Valadon Resort de Ville
900 Hammond Street
West Hollywood, California 90069
Daily rates from $135.

Le Dufy Hotel de Luxe
1000 Westmount Drive
West Hollywood, California 90069
Daily rates from $135.

Le Rêve Hotel de Ville
8822 Cynthia Street
West Hollywood, California 90069
Daily rates from $115.

The Hotels of
L'Ermitage International
. . . a collection of originals

Reservations and Information

1-800-424-4443

FAX 213/854-0926
TELEX 4955516:LEGG
APOLLO-PARS-SABRE
UTELL WORLDWIDE

© 1990 Hotels of L'Ermitage International
*Member Small Luxury Hotels and Resorts

Is CentraNet the best all around phone system for your business?

Well, Yes and No.

	CentraNet	Key Systems
Do I have to spend any money up front for special equipment?	NO	YES
Does my system go down if there's a power outage?	NO	YES
Does the system's features use the telephone company's central switch?	YES	NO
Is the system checked by computer 24 hrs. a day to prevent breakdown?	YES	NO
Is my technology automatically upgraded?	YES	NO
Can new feature packages be added on an individual basis instead of just a system wide basis?	YES	NO
Can I add extra features with just a phone call instead of having an installer come to my business?	YES	NO
Can I add lines and features to other locations with just a phone call?	YES	NO
Does CentraNet work with the phones I already have?	YES	NO

We thought you might appreciate a little help in choosing a new phone system for your company. A shopping list of sorts. Take a minute, go through the questions and answers.

You'll begin to realize why a CentraNet phone system from GTE is the best answer to your company's phone system dilemma. You don't need a Ph.D. in Phone. All you need to do is call 1-800-462-6000, and order CentraNet. The way we see it, a phone system that gives a small business anything less than complete peace of mind should be out of the question.

CentraNet

GTE

THE POWER IS ON

20C-CA

Tenneco: stepping forward.

Sometimes going forward required taking difficult steps. In the past two years at Tenneco, we sold our oil and gas business . . . began aggressively expanding our natural gas pipelines . . . upgraded our farm and construction equipment product lines . . . expanded our automotive division . . . moved into new markets in chemicals and minerals . . . continued to diversify our packaging company. . . and developed high-tech construction methods at our shipyard. We've come a long way and our shareholders have benefitted. All six divisions reported profits last year and 1990 looks strong. These six solid performers have made Tenneco a leading diversified industrial company serving global markets. That's our path to the future. Phone 1-800-345-9027 for more details.

TENNECO

Tenneco Gas (pipelines) • J I Case (farm and construction equipment) • Newport News Shipbuilding • Tenneco Automotive
Packaging Corporation of America • Albright & Wilson (specialty chemicals) / Tenneco Minerals

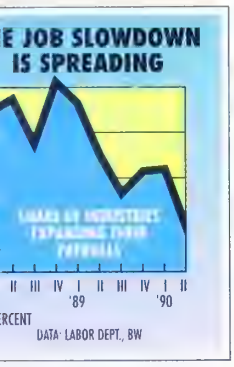
Y 23, 1990

BY JAMES C. COOPER AND KATHLEEN MADIGAN

F YOU'RE NOT NERVOUS YET, AKE A GOOD LOOK AT THE JOB MARKETS

conomists got a wake-up call last quarter from the labor markets. A few heard it, but many slept right through. During this 7½-year expansion, job wth has been the most reliable indicator of the econo- 's health. Right now, it's sending out a loud recession ning.

'he expansion's proven resilience seems to have lulled ny forecasters to sleep. The received wisdom these s is that the economy has become shockproof, if not ession-proof. But according to the labor markets, that ion will be severely tested in the second half.



The employment report for June showed that job growth in the private sector, excluding government, has slowed sharply to the weakest annual pace since the expansion began. Private jobs grew by only 1.6% during the past year, down from 3% during the previous twelve months and from 3.8% in the year before that. And the slowdown is broad. In the sec- l quarter, only 49.7% of all private industries expand- their payrolls. That's also an expansion low (chart).

'he economy's last brush with recession came in 1986, en private job growth slipped to 1.8%. The result: Real ss national product then posted its weakest two-quar- performance of the expansion. Real GNP actually fell % in the year's second quarter, followed by a meek n of 0.8% in the third.

Back then, broad strength in demand kept the econo- afloat. That will not be the case in the second half of 0. Capital spending and exports are both slowing, and orts to cut budget deficits at both federal and state els will be a further drag. Even consumers, the ex- nsion's most steadfast prop, are beginning to buckle.

ONSUMERS INK INTO GLOOMY OOD

The deteriorating outlook for consumer spending goes back to the job market. The employment slowdown means slower income growth. And that comes at a time en consumers are already saving more, borrowing s, and moderating their optimism about the future.

'he Labor Dept.'s latest report on employment was t very encouraging. Jobs in all nonfarm industries se by only 40,000 workers in June, following a large 6,000 increase in May. Government hiring of census rkers fueled the May advance—one of the factors king this year's monthly numbers unusually volatile.

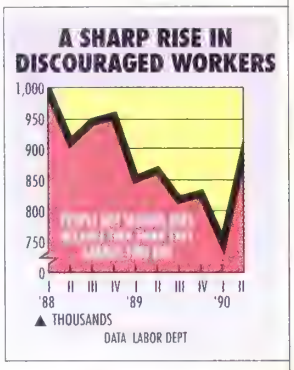
That's why looking at private-sector employment over a longer period is more enlightening. Excluding government, private jobs rose by about 90,000 in each month. During the past six months, job gains in private industry have averaged only 112,000 per month, down from 136,000 in the second half of 1989, and from 218,000 in last year's first half.

Almost no industry has escaped the slowdown. In June, construction employment fell to the lowest level in a year. Jobs in manufacturing dipped to a two-year low. Employment growth in private service industries continued to drop, to only 2.7% during the past year. At the start of the five previous recessions, annual job growth in private services was faster than that.

The sluggishness in the goods-producing sector is spilling over to those service industries that are dependent on goods. Since January, employment in retail trade has gone nowhere, and jobs in wholesale trade have barely grown. Job growth in the financial sector has also slowed. And excluding health care, employment gains in business and personal services are down considerably.

A HIGHER JOBLESS RATE LOOKS LIKELY

The job slowdown has seemed tame, however, because it has not shown up in the most visible indicator: the unemployment rate (page 70). Joblessness dipped 0.1 percentage point in June to 5.2% of the civilian work force and has remained largely unchanged for more than a year. But the jobless rate is a lagging indicator—it starts to rise after an economic slowdown has begun. A higher rate in the second half seems inevitable.



Already, the number of discouraged workers, those who have quit looking for work because they don't think they can find it, has risen sharply to 893,000 in the second quarter—the highest in a year and a half (chart). Last quarter's 146,000 jump was among the largest since the government began keeping records in 1970.

The large June drop in the unemployment rate in manufacturing suggests that the recent jobless numbers are a little screwy. The factory jobless rate fell to 4.9% last month—the lowest in more than a year. But manufacturers have laid off 335,000 workers in the past 15 months.

Moreover, labor-force growth has slowed more sharply in recent months than the long-term demographic trend

can explain. That has helped keep the measured jobless rate low. When the growth of the labor force picks up to a more realistic pace in coming months, the unemployment rate is likely to shoot up.

THE HIGH COST OF SAYING 'CHARGE IT'

The slowdown in job growth certainly has heightened consumers' worries about the expansion's future. It was the main reason for the June drop in consumer confidence. And those concerns are causing many shoppers to think twice before spending, especially on credit.

True, the hefty $3.91 billion increase in installment credit for May doesn't paint that picture. But big credit gains may be misleading. They could be a signal that consumers are having trouble paying off their loans.

That's because the fastest-growing segment of debt has been revolving credit—mostly credit cards. Such debt has risen by an average of $2 billion per month so far in 1990. But buying is way down at department stores, building suppliers, and restaurants—places where shoppers are likely to use credit cards.

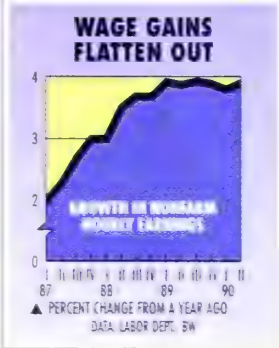
So, why is revolving credit still increasing? One reason is hefty interest charges. About 60% of plastic users do not pay off their balances each month, and the average annual interest rate on cards is in excess of 18%. That suggests that about $1.85 billion in interest is charged to credit-card accounts each month. The buildup of revolving debt may well reflect a slower pace of repayment plus new interest added to credit balances, rather than an increased use of plastic when shopping.

PAY HIKES ARE STILL FUELING INFLATION

While slower job growth may be cutting into consumers' use of credit, it still hasn't brought about the desired effect on wage costs—and thus on inflation. True, wage growth hasn't accelerated this year, but it hasn't slowed down, either.

In June, the average nonfarm wage advanced by 0.3%, to $10.01 per hour. Manufacturing pay increased 0.2% last month, after a 0.7% jump in May, which was mostly the result of extra overtime in the auto industry.

That overtime pay boosted growth in factory wages in the second quarter. Manufacturing pay rose at an annual rate of 5.9%—the biggest gain in eight years. But the steep pay gains in the auto industry will not be repeated this quarter, which means that total factory wages should grow a lot more slowly in the current quarter.



Service wages, however, continue to edge upward with little indication of a slowdown. The average hourly pay in the private service sector rose by 0.3% in June, and posted a second-quarter gain of 5%, at an annual rate. Unlike factory pay, growth in service wages was widespread. Trade, finance, and service industries all hiked pay at a rapid clip last quarter.

The gains in service pay have offset the generally slowing trend in wage growth in manufacturing. As a result, the yearly growth in all nonfarm wages has been holding at about 4% since early 1989 (chart). This growth rate props up the rate of inflation. And pay raises are unlikely to slow unless demand for labor softens further.

Moreover, the government's data on hourly wages only cover production workers, about 70% of payrolls. Pay gains for salaried workers are rising faster. According to the Conference Board, salaries will increase about 5% this year and 5.5% in 1991. These gains would increase the upward pressure on labor costs and prices.

If the Federal Reserve is serious about cutting inflation, it must rein in economic growth even more to loosen up the labor markets. Doing that while avoiding a recession will be a tricky maneuver, one that will keep policymakers—and forecasters—awake nights.

THE WEEK AHEAD

BUSINESS INVENTORIES

Monday, July 16, 10 a.m.
Inventories at manufacturers, wholesalers, and retailers probably increased by about 0.1% in May, the same gain as in April, according to a survey of economists compiled by MMS International, a division of McGraw-Hill Inc. The expected small gain is suggested by the fact that there was no change in May factory inventories, which account for about half of all business stockpiles.

MERCHANDISE TRADE DEFICIT

Tuesday, July 17, 8:30 a.m.
The trade deficit probably widened to about $7.6 billion in May, from a low $6.9 billion in April. Exports, down 3.5% in April, likely rebounded in May. And a gain in customs duties for May indicates that imports also rose, after falling 6.2% in April.

INDUSTRIAL PRODUCTION

Tuesday, July 17, 9:15 a.m.
The MMS consensus is that industrial production advanced by 0.2% in June, following a strong 0.6% increase in May. The June gain would push second-quarter output growth to an annual rate of 4.5%, up from the first quarter's meager 0.7% pace.

CAPACITY UTILIZATION

Tuesday, July 17, 9:15 a.m.
The small expected gain in industrial production suggests that operating rates at the nation's factories, utilities, and mines were unchanged in June, from May's level of 83.6%.

CONSUMER PRICE INDEX

Wednesday, July 18, 8:30 a.m.
The MMS consensus expects a 0.3% increase in consumer prices in June, compared to a 0.2% gain in May. That means inflation in the second quarter stood at an annual rate of 3.4%, down sharply from the 8.1% pace of the first quarter.

HOUSING STARTS

Wednesday, July 18, 8:30 a.m.
Housing starts in June were likely unchanged from their 1.21 million annual rate of May. That was the lowest level since the last recession.

GET OUT OF THE TOWER.

Your business battles won't be won by a bunch of guys up in some ivory tower somewhere.

Real help comes only from people who have seen your business the way you see it.

From the frontline, from the trenches. Day in, day out.

That's exactly where you'll find thousands of people from the new Wang—not in the home office, but on the frontlines of business around the world.

For example, we're sending hundreds of application engineering teams into the field to work side-by-side with you.

To learn, first-hand, how you work. To face the problems you face. To see your vision of your business.

Then to create the solutions you need.

Not ready-made, one-size-fits-all solutions, but custom-made answers to your real-world situations.

Lots of companies talk about building partnerships.

But how many are willing to put their own people right in the trenches with you?

LET'S GET TO WORK. WANG

JULY 23, 1990

PRESSURE ON PROFESSIONALS

FROM LAWYERS TO ACCOUNTANTS, PRIVILEGES ARE BEING ERODED

If you're a dentist, an accountant, an architect, or almost any other kind of professional, this hasn't been your year. In February, the Justice Dept. indicted three Arizona dentists on criminal price-fixing charges. On July 5, the Securities & Exchange Commission took the drastic step of going to court to enjoin accountants Price Waterhouse & Co. from violating securities laws. That same day, the American Institute of Architects settled charges by federal trustbusters that the group had illegally limited competition. And then, on July 7, Massachusetts lawmakers voted to levy a 5% sales tax on fees charged by many professionals.

What's going on here? Society once held professionals in high esteem. They cured the sick, built bridges, defended the accused, and balanced the books. For that, they enjoyed unusual freedom from many demands of the marketplace. They could set their own hours. They could charge hefty fees for their services. They could choose their clients. And government largely ignored them, letting professionals police themselves.

No longer. The marketplace now cuts deeply into the hide of most professionals. Price-cutting, marketing, and hustling for business are now common. And gone, too, is the respect that welcomed professionals. Now, they're easy targets for deficit-cutting legislators, disgruntled clients, and denuded investors seeking culprits with deep pockets.

SEE NO EVIL. It's almost as if professionals, with their country-club memberships and late-model BMWs, are seen as the cause of most of society's ills—and punishing them an acceptable way of getting even. "The professions have been unmasked," says Donald J. Kirk, a Columbia University business professor and former chairman of the Financial Accounting Standards Board. "They are no longer assumed to be looking after the public's interests."

Just ask Marsha K. Hoover. In March, she attended a "wake" for Chadwell & Kayser, a 74-year-old law firm that fell victim to cutthroat competition. The event, complete with black crepe and balloons, was organized by former colleagues at the firm where Hoover worked for seven years. News of the firm's death, however, evoked little sympathy from nonlawyers. "I don't know if I would have gone into the profession if I'd known how universally detested lawyers are," says Hoover, who since has joined a smaller Chicago practice. "I'm almost ashamed to tell people what I do for a living."

Skepticism and downright resentment toward the professions are not entirely new. Shakespeare penned the memorable line: "The first thing we do, let's kill all the lawyers." But no longer is the grudge held just against the rakish young barrister collecting $83,000 a year or the doctor fresh out of residency drawing six figures. There's a growing perception that professionals have abused their autonomy and enriched themselves at the expense of their cli-

PROFESSIONALS UNDER FIRE

Feb. 7 The Justice Dept. indicts three Tucson dentists on charges of illegally setting patient fees

Mar. 19 The Federal Deposit Insurance Corp. brings a malpractice suit against six former partners of Dallas-based Jenkens & Gilchrist, law firm to the now-insolvent Vernon Savings & Loan

June 28 The Securities & Exchange Commission bars accountants Ernst & Young from getting any new business for 45 days at its New York office after alleging a predecessor firm engaged in "improper professional conduct"

July 5 The Justice Dept. sues the American Institute of Architects, alleging the trade group illegally restrained competition. The AIA agreed to establish an antitrust compliance program and to pay $50,000 in costs

July 7 Massachusetts legislators approve a 5% sales tax on the fees of accountants, architects, engineers, and lawyers

DATA: BW

s. "There was a time en most people be- ed that accountants n't lie, cheat, and al," says Kari S. Ber- n, editor of *Public ounting Report*, an ustry newsletter. ow, we're seeing suits right and left." n fact, liability ms against account- firms rose fourfold he 1980s, says KPMG t Marwick counsel onard P. Novello. hen businesses fail, the folks who are t tend to look around for someone to me," says Philip B. Chenok, president the American Institute of Certified lic Accountants. In June, the SEC red Ernst & Young from taking any business at the accounting firm's w York office for 45 days. The rea- ? The SEC alleged that a partner in a decessor firm, Ernst & Whinney, had aged in "improper professional con- t" stemming from a 1980 audit.

Nor are the number-crunchers alone le). The spectacular collapse of the ings and loan industry has spurred avalanche of liability suits. The Fed- l Deposit Insurance Corp. has some liability suits pending against profes- nals. And the feds are leaving no ne unturned. In March, the FDIC sued former partners of the Dallas firm kens & Gilchrist, which counseled the -insolvent Vernon Savings & Loan. FDIC is seeking more than $1 billion in damages from the attorneys, who are accused of conflicts of interest and engaging in deceptive trade practices. "To go after attorneys because they happen to have worked in a law firm that represented an S&L is grossly unfair," grouses Joseph R. Reeder, a Washington defense lawyer in the case.

Longstanding professional practices are also being challenged on antitrust grounds. "Competition is pretty important in any industry, and professionals are no different," says Justice Dept. antitrust lawyer Robert E. Bloch. Antitrust actions under way include probes of obstetricians in Boston and the Tucson dentists, who face a September trial in the first health care criminal antitrust case in 50 years.

EASY TARGETS. In part, government assaults on the professions have become more visible as veils protecting the secrecy of disciplinary proceedings are being pulled back. In 1988, the SEC required that proceedings against auditors be made public. Before then, only the names of auditors found guilty were disclosed.

But the government also has become more aggressive. Last December, the SEC announced the creation of a new financial-fraud task force to scrutinize questionable accounting practices. Auditors are not a specific target, says SEC Commissioner Philip R. Lochner Jr., but "whenever you're talking about financial fraud, accountants are usually involved." While regulators have brought suits against professionals before, the 1989 savings and loan bailout bill gives them new powers to go after lawyers, accountants, and appraisers.

Professionals increasingly are being blamed for the insoluble crises that afflict America, including runaway health care expenses and the lack of industrial competitiveness. With America's medical bill soaring to an estimated $615 billion last year, or roughly 12% of the gross national product, doctors have become easy targets for lawmakers who last year agreed to set ceilings on medicare payments to physicians. "You never used to hear the unhappiness in the doctors' lounge that you do today," says Floyd S. Tuckel, a Dearborn (Mich.) ophthalmologist. "Guys are telling me now that it's no fun anymore." That's a condition more and more professionals can expect to be lamenting.

By Julia Flynn Siler in Chicago, with Susan B. Garland, Catherine Yang, and Dean Foust in Washington, and bureau reports

THE ECONOMIC SUMMIT

SMILING THROUGH: DELORS, ANDREOTTI, KOHL, MITTERRAND, BUSH, THATCHER, MULRONEY, KAIFU

THE ALLIES BUTT HEADS IN HOUSTON

The Group of Seven couldn't agree on much of anything at the summit

For George Bush, a week of nonstop international summitry looked as enticing as tall glass of icy lemonade in the Texas sun. Here was an opportunity for the "foreign policy President" to show off his mastery of diplomacy. His aides envisioned a President boldly leading U. S. allies toward a new military and economic order that would both reassure Soviet President Mikhail Gorbachev of the West's good will and accelerate the dismantling of the Soviet empire.

Bush did succeed at the NATO summit in London, as he led a redefinition of the alliance's mission. But the July 9-11 Houston economic summit turned out to be the most openly contentious of the 16 annual meetings of the Group of Seven industrial nations. The U. S. President, his economic clout hamstrung by deficits and his military power appearing increasingly irrelevant, can no longer impose unity on the allies. Emerging from the deep chill of the cold war, the summiteers found their desire for unanimity couldn't overcome their competing commercial and political interests. Bush admitted as much at the post-summit press conference. "We're not urging everyone to march in lockstep," he said.

The President nonetheless proclaimed his hometown meeting a success. "We are dealing in an entirely different era," he said.

But perhaps British Prime Minister Margaret Thatcher best characterized the proceedings when she said: "We are in fact together but taking a different view." Take aid to China. Japan, fearful that G-7 sanctions are eroding its beachhead on the mainland, pressed hard for an agreement that would let it resume a $5 billion lending program for Beijing. Although others remain skeptical about China's limited progress on human rights, the final agreement allows Tokyo to resume its aid and opens the door to expanded World Bank lending to the regime in the future.

The free-for-all didn't stop there. The U. S. has urged a go-slow approach to aiding Moscow out of fear of giving Gorbachev an opening to defer painful economic reforms. But under intense pressure from Kohl and French President François Mitterrand, Bush greatly softened his opposition. The final agreement lets each country provide whatever aid it deems "appropriate."

On aid to the Soviets, the West may end up with the worst possible result: A disjointed, divided program

There is one caveat. Under the summit agreement, the G-7 nations are supposed to hold back aid until they see the results of two studies—a quick reading on the Soviet economy by the European Community due in October and a more deliberate yearend examination by the International Monetary Fund and the World Bank. But the Germans have already offered the Soviets $3 billion in guaranteed credits, and the summit pact hasn't changed their timetable. "There's no discussion on their part of slowing down," says Treasury Secretary Nicholas F. Brady. The result could be the worst of all worlds: A disjointed Western aid program that allows the Soviets to play the allies against each other.

Agriculture proved to be an even more contentious issue. Bush boldly staked the success of the Houston hoedown on his ability to crack stubborn European positions on agricultural trade and aid. By that standard, he failed. Europe stymied Bush's demand that subsidies for farm exports be phased out.

Bush aides claimed the summit did enough to put crucial trade negotiations, scheduled for completion by December, back on track. But the U. S. had hoped, going in, that Houston would provide negotiators in Geneva, who are working to wrap up the global trade talks, with strong guidance. Instead, says Gary C. Hufbauer of Georgetown University, the agricultural statement represents "a diplomatic patch-up of a very substantial difference."

TURNABOUT. The subsidies dispute, which costs industrial nations $245 billion a year, could kill a trade deal. If the Europeans won't agree to import more farm products, developing nations won't open their markets to industrial nations.

For Bush, the G-7 meeting was a sharp turnabout from his recent success at the NATO summit in London. He set in motion NATO's transformation from a military alliance to a political security pact. The allies showed their strength by inviting the Soviet Union and other Warsaw Pact nations to come into the NATO tent as diplomatic observers.

But getting the Soviets to lay down their arms may prove to be far easier than getting the allies to cooperate economically. In Houston, the West's leaders seemed to forget why they once considered unity so important. George Bush is learning fast that being the leader of the free world ain't the job it used to be.

By Douglas Harbrecht and Mike McNamee in Houston, with Paul Magnusson in Washington

AS THE SCANDAL IN THE PITS OSTLY SMALL POTATOES?

w, the feds are scrambling for evidence strong enough to sway jurors

seemed such a sure thing. Under-over FBI agents posing as crooked raders had secretly taped commod- traders in what appeared to be ille- rigging of the rapid-fire Chicago kets. But in the cold light of a court- n, the evidence proved considerably e ambiguous. After 11 days of delib- ion, a federal jury on July 9 deliv- guilty verdicts on just eight counts of 108 charges ght against Chica- Mercantile Exchange ss franc traders in first trial of the ernment's three- , $4 million "Hedge- er" investigation.

ow, Acting U. S. At- ey Ira Raphaelson t scramble to keep much-ballyhooed e from losing mo- tum. The govern- t badly needs con- ions in September s of Japanese yen soybean traders if to prove its conten- that the Chicago res markets are rid- with racketeering.

DLOCK. The govern- t did not come up pletely empty-hand- The jury was dead- ed on the most seri- charge, racketeering conspiracy, inst Swiss franc broker Robert ky and on 78 mail- and wire-fraud ges against Mosky and traders Dan- Scheck and David Zatz. Nonetheless, ky, found guilty of seven violations he Commodity Exchange Act, faces years in jail and $700,000 in fines. Scheck, who was found guilty of a violation in a single trade where he med $50 from a customer, faces five s and a $100,000 fine. Sentencing for is set for Oct. 12. Zatz was not d guilty on any charges. But like other two, he will have to defend self again if the government pro- ds with plans to retry the 78 counts which the jury was hung. The unim- ssive result at trial has commodities erts wondering if the government can prove its allegations of system- orruption in the futures pits. "Maybe government overdid it," suggests Jack A. Barbanel, managing director of First Global Asset Management in Princeton, N. J.

With convictions on only eight charges, in which outside customers lost a total of just $200, the government now looks as if it overreached. And the outcome also surely has raised the hopes of 13 Chicago Board of Trade soybean traders and 16 Merc yen traders facing trial on similar charges. What's more, the prosecution's ability to persuade other traders to turn state's evidence, thereby hooking bigger fish, has been hurt. "A lot of these guys are emboldened," says Jeffrey B. Steinback, a lawyer for several traders who are currently under investigation.

PROSECUTOR RAPHAELSON: STYMIED A BIT, BUT "WE'RE NOT GOING AWAY"

Jurors interviewed after the trial told BUSINESS WEEK they understood the nuances of futures trading. But some decided that mail-fraud, wire-fraud, and racketeering charges were not appropriate given the apparent minor nature of many of the alleged violations. Many of the tapes proved inconclusive. And the undercover agent in the Swiss franc case, Randall Jannett, may have had too much on his hands. "He was trying to observe and trying to trade so other people wouldn't be suspicious of him," says jury forewoman Bonita Engeldinger. "It was just too much."

> The prosecution's ability to get traders to turn state's evidence, thereby hooking bigger fish, has been hurt

TELLING TAPES. Still, defense lawyers and their clients should button down their bravado. Lawyers on both sides in the upcoming cases say the evidence was weakest in the Swiss franc case, which with only three defendants was the quickest to come to trial. With more defendants and more indictments, the soybean and yen cases have taken longer to prepare. The best the FBI could come up with on Mosky was this less-than-damning comment to Jannett: "Good things happen to those who help out." In the case against the 13 soybean futures traders, the tapes are more to the point. "[Expletive] the customers," trader John A. Vercillo says on tape. "We should have the advantage." He is alleged to have conducted illegal trades.

But it's Raphaelson who expects to have the advantage when the government goes to trial again in September. By the end of July, he plans to unveil transcripts of yen traders' conversations said even by defense lawyers to be incriminating. And prosecutors plan to query jurors from the Swiss franc case in coming days with an eye toward polishing their act. Also, buoyed by some jurors' claims that only one or two were holding out against convicting the Swiss franc traders on most counts, Raphaelson vows to retry the 78 charges on which the jury was hung. "We're not going away," he insists.

The chief prosecutor bristles at suggestions that the government has come a cropper in its first futures-scandal trial. "If going to jail is a win, I guess they won," he says. But sending people to jail for stealing $50 from a customer is something far different from proving pervasive fraud on the commodities floors. Unless Raphaelson can do that in the upcoming trials, the massive government probe will have proved much ado about little.

By David Greising in Chicago

RETAILING

SASHAYING INTO A RETAIL SLUMP

Paris' Galeries Lafayette chooses a risky runway: Fifth Avenue

HAUTE UPGRADE: THE PARIS FLAGSHIP NOW DEVOTES WHOLE FLOORS TO THE COUTURIERS

Since 1895, the stately Paris flagship store of Galeries Lafayette has been a retail mecca for French and tourists alike. But by the fall of 1991, Americans won't have to cross the Atlantic to shop *à la française*. In a deal that gives developer Donald Trump respite from his troubles, the leading French department-store chain plans to set up shop near Fifth Avenue and 57th Street in Manhattan, within Trump Tower's marble walls.

It's a brave move, considering the history of big French retailers in the U. S. Rival chain Printemps opened a store in Denver in 1987, only to close down when the Rocky Mountain recession refused to end. And Carrefour, after opening a location in Philadelphia, is stalled in its effort to roll out its French-style hypermarkets, which are combination supermarkets and discount department stores.

'LUXURY CORNER.' New York hardly looks like a better setting. Galeries is moving into the 80,000-square-foot space vacated by one casualty of the current retailing environment, Bonwit Teller. The matriarch of ladies' apparel stores closed after a liquidation sale that epitomized all the woes afflicting such New York landmarks as B. Altman's, which shut down in December, and Bloomingdale's, which is ensnared in the bankruptcy of its parent, Federated Department Stores Inc. Other Manhattan-based chains, such as Saks Fifth Avenue and Macy's, have also posted disappointing earnings. And New York City has lost much of the economic vigor of the 1980s.

Gloomy talk doesn't faze Georges Meyer, the 59-year-old chairman of Galeries Lafayette and husband of Noëlle Meyer, heir of the family that owns 62% of the chain. He says many of the retailing problems in the U. S. stem from the overextended state of holding companies. Underlying demand remains strong, he maintains, especially for luxury goods. "Fifty-Seventh Street and Fifth is the luxury corner," he says. "Luxury will be our niche." And he figures his up-front investment is modest: By leasing the Trump space, he won't have to build from scratch. And Galeries Lafayette, whose flagship department store occupies an enormous space on Boulevard Haussmann in Paris, will design a much smaller, more focused version in the New York location.

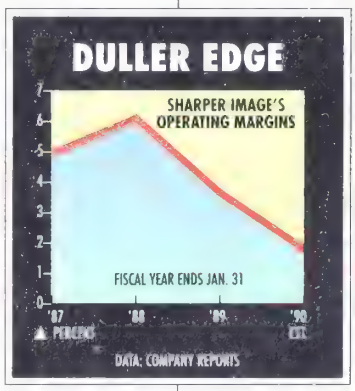
PLUS CHIC. Meyer is also relying on his own obsession with retailing to see him through. "He loves his business and would rather spend time walking through the store than playing with financial statements in his office," says Ronald Freeman, managing director of the international investment banking di-

SHARPER IMAGE: WHERE HAVE ALL THE YUPPIES GONE?

Donald Trump is on an allowance, co-op sales stink, and yuppies are wondering how they can afford those kids they're finally having. So who needs a $649 toy model of a Ferrari Testarossa or a $7,700, fully restored, old-fashioned Coca-Cola vending machine? Executives at Sharper Image Corp., purveyor of gadgets and frivolities, are asking just that. "In 10 years, I've never seen an environment this soft for our type of products," says Richard Thalheimer, the 42-year-old founder and CEO of the San Francisco retailer and catalog merchant.

Soft is right. The company, which despite modest 1989 revenues of $209 million came to symbolize the 1980s high-consumption credo, says it will report a loss of up to $1.6 million for the quarter ending in July on decreased revenues of about $42 million.

That's a lot worse than last year's quarterly profit of $93,000. And with light sales expected for the October quarter as well, Sharper Image may go into the holiday season with a nine-month loss of about $4 million. So even with a robust Christmas, Thalheimer foresees a lower full-year profit. That would be the third annual earnings decline in a row. No wonder the stock has sunk to a recent $4.75 a share from the $10 it fetched in a 1987 initial public offering.



Thalheimer blames excessive catalog costs for squeezing his margins (chart). Although Sharper Image now gets only 20% of its sales from mail order, glitzy monthly catalogs are the main to draw shoppers to the company's stores. Thalheimer decided last yea boost results by spending nearly $25 lion—up from $19 lion the year before produce and mail 39 lion catalogs. But market for Sharper age's adult toys is fa limited, and extra n ings have not flus out new customers.

KIDS' STUFF. The con ny hopes to save $6 lion by dropping inac buyers from its lists mailing only 32 mil catalogs. It has te thinner catalogs that display only most popular items. To expand his r ket, Thalheimer also will roll out a Sh er Image Kids catalog, featuring v games and other toys. And two new c logs, one of home furnishings and an

on of Salomon Brothers Inc., which ised Galeries in the lease negotia- s. After working for a French textile pany in Latin America, Meyer joined eries Lafayette in 1964, overseeing operations of the company's provin- stores. He became chairman in 1987. n New York, Meyer aims to concen- e on French apparel, cosmetics, and essories, especially for trendy cus- ers. In France, too, he has moved the is store from a middle-of-the-road re- er to something decidedly more chic. Boulevard Haussmann location, ped by a spectacular *belle époque* ss-and-iron dome, now devotes whole rs to the creations of such couturiers Christian Dior, Yves Saint Laurent, ia Rykiel, and Claude Montana. In basement a new, well-stocked book- p, with a computerized buying guide, ulges the bibliomania of the French.

LE DEBT. Upgrading the Paris store's ge, along with strong retail demand France, helped boost profits 34% last r, to $13.5 million, on a 10% rise in es, to $1 billion. Stores in such exotic tions as Singapore are doing well, as are 118 Monoprix and Inno dis- nt supermarkets. Profits hit $27 mil- last year on sales of $3.1 billion, a sonable margin by European stan- ds. The company has little debt.

Meyer hopes the Gallic aura emanat- from the Chanel and Hermès stores ady on 57th Street will make New kers and tourists more receptive to ther chic French retailer. The ques- is whether shoppers will have the n to spend on more imported aura n the capital of luxury.

By Blanca Riemer in Paris

people over age 50, will be tested. these tactics do not address the ental question: Will there be fresh in the market for Sharper Image's erchandise? "There isn't a single his catalogs that a person needs a relatively gentler and kinder e," quips Alan Millstein, pub- f *Fashion Network Report*. Thal- says he will modify the company's y emphasizing goods he thinks are eful at home, such as a motorized (only $35) or a cholesterol-measur- ce ($200). "We want to move away ne disposable glitz of the '80s,"

e so. But Thalheimer's main busi- s been the indulgence of extrava- ims. Persuading customers that he sfy their nesting needs after years ering the glitz could end up costing mer a lot more—much more, in fact, zens of vintage Coca-Cola vending es.

aria Shao in San Francisco, with Lau- in New York

LOOKING AHEAD: PRIME PLANS TO BUILD THREE NEW BUDGET WELLESLEY HOTELS

PRIME MOTOR INNS IS SHORT ON CASH, LONG ON HOPE

With Ramada and Rodeway sold, the company is plotting a path back up

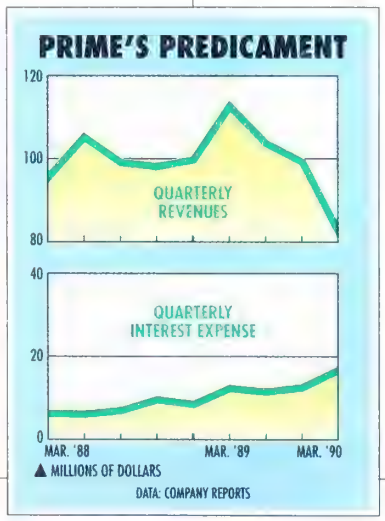
Prime Motor Inns Inc. had only a short stay at the top. After it paid $57 million for Ramada and for Rodeway's U. S. franchise systems last year, it was the No. 2 hotel franchiser, behind Holiday Inn. Then, Prime ran smack into the real estate crunch. Suddenly, it couldn't count on paying off its swelling debt largely through sales of relatively few select assets.

Prime's troubles were an open invitation to bottom-fishers. They weren't interested in individual properties—they were hungry for whole chains with familiar names. In June, Prime sold the 475 Ramada hotels and 450 Howard Johnson's franchises to Blackstone Capital Partners for $170 million in cash. On July 5, Prime parted with the 150-unit Rodeway line in a $14.9 million deal with Manor Care Inc., owner of the Quality Inns chain, which had earlier considered buying the whole company. In all, Prime shed about $60 million in annual revenues.

That's one hasty retreat. Now, though, Prime is already thinking comeback. The plan: refashion the company around its two company-owned hotel chains—the budget Wellesley and midprice AmeriSuites brands. "Our focus now will be very much on developing these two new brands," says Joseph Gaynor, Prime's vice-president for corporate finance. Midprice hotels, ranging from $40 to $60 a night, are the fastest-growing segment of the $60 billion lodging industry, he notes. What's more, Prime still owns or manages 136 hotel properties and has 200 other properties under construction.

'ROUGH TIME.' That's a gutsy strategy. The 24-hotel Wellesley chain and the 5-unit AmeriSuites can't match the big marketing budgets and elaborate reservation systems of their larger rivals. Says Quality Inns International Inc. President Gerald W. Petit: "They are going to have a rough time competing against us and Holiday Inn."

Also, cash is still tight at Prime—and could get tighter. Two major investments look especially iffy. Prime recently took an $80 million write-down related to its $138 million investment in Ser-



vico Inc., a West Palm Beach (Fla.) hotel operator that's struggling. It's also unclear whether Prime will recoup its $75 million interest in Frenchman's Reef resort on St. Thomas in the Virgin Islands. Prime lent the money to the property's buyer, a partnership led by financially strapped VMS Realty Partners.

The squishy real estate market isn't helping any. A good chunk of Prime's earnings growth has come from gains on real estate deals. Prime doesn't detail its earnings by source, but Salomon Brothers Inc. estimates that roughly 25% of Prime's operating income in recent years has come from onetime gains such as hotel sales and consulting fees. In a tight lending market, Prime can't rely on dealmaking to boost earnings.

Prime's investors are worried. The company's stock has lost about 80% of its market value over the past year and now trades at about 8. Don't expect a near-term rebound. In late July, Prime is expected to post a $40 million loss for the year ended June 30, on revenues of about $390 million. The culprits: restructuring costs and the Servico mess.

At least Prime's balance sheet is no longer such a frightful sight. Following the Ramada and Servico deals, Prime's debt-to-equity ratio was a scary 1.5 to 1. Interest expense more than doubled, to $17 million, during its most recent quarter (charts, page 29), and Prime went into technical default on a $263 million loan from Morgan Guaranty Trust Co.

OPTIMISTS. Prime recently renegotiated that loan, and it will use most of the $170 million in proceeds from the Ramada and Howard Johnson sale to pay it down. That should leave it with a 1-to-1 debt-to-equity ratio. Even so, Standard & Poor's Corp. recently placed Prime's $230 million in subordinated debt on its surveillance list for possible downgrading, owing to the challenge ahead in building up Wellesley and AmeriSuites.

In fact, Prime doesn't have a lot of cash to pour into the two chains. Prime has plans to build three new Wellesley units and seven additional AmeriSuites hotels by yearend. After that, a lot depends on whether real estate lending loosens up. Says Gaynor: "Right now, it's a difficult environment."

Prime's largest shareholder, the Wisconsin Investment Board, remains optimistic. Maybe it has to be. The pension fund owns just under 10% of Prime and has endured "steep" paper losses, investment director John Nelson laments. "These guys still have excellent properties," says Nelson hopefully.

Perhaps. But until the real estate market rebounds, Prime won't be checking into the penthouse suite.

By Brian Bremner in New York

Commentary/by Mark Lewyn

'KILLER' COMPUTER VIRUSES: AN IDEA WHOSE TIME SHOULDN'T COME

Somebody at the Pentagon apparently doesn't know that the cold war is officially over. Eager as ever for the most exotic weaponry, the Defense Dept. wants to finance a study of whether the U. S. should use computer viruses to infiltrate and destroy enemy communications systems. By the July 2 deadline for responses, 19 proposals had come in from software companies and a handful of hawkish hackers.

Dr. Strangelove would adore the notion of zapping the enemy's communications networks with a computer virus, which multiplies and uses up so much memory that it can cripple a system. But nobody else should. The Pentagon sees computer viruses as inexpensive yet potentially powerful ways to disrupt an adversary's operations. The risks to the Pentagon's own computers, however, may well outweigh any potential benefits. "The whole thing just disturbs me," says Richard D. Pethia, coordinator of the Computer Emergency Response Team, a high-tech SWAT team the Pentagon set up last year at Carnegie Mellon University to help combat virus outbreaks. "It's just too strange for me to think about."

The Defense Dept.'s Center for Signals Warfare (CSW), a hush-hush outfit in Warrenton, Va., latched onto the "killer virus" notion after the publication last October of an article by Booz, Allen & Hamilton Inc. consultant Myron Cramer. The piece suggested that a "commando virus" could infiltrate an enemy computer's central processor via radio waves or phone lines that might normally be used to transmit messages.

That may indeed be feasible. Application Configured Computers Inc. of Baldwin, N. Y., has been trying since 1988 to sell the government on a computer program known as "Virus as a Weapon" (VAAW). The company describes VAAW as a "reengineering of hacker-based hardware and software products" that can be used to damage other computers.

Defense officials are a bit defensive about the project. "We're just exploring the possibility," says Richard Poseil, the CSW's research chief. "But we're hoping to develop the concept more fully."

TEMPTING TARGETS. But the military may be asking for trouble. Most potential enemies, such as Libya's Muammar Qadaffi—or even the Soviet Union—are likely to be far less reliant on high-tech computer systems than the U. S. Creating a workable virus could provoke a new kind of arms race, one in which U. S. computer networks—both military and commercial—would make the most tempting targets. "Do we really want to escalate a war where we are more vulnerable than anyone else?" asks Marc Rotenberg, director of the Washington office of Computer Professionals for Social Responsibility, a public-interest group.

Despite such reservations, the Pentagon is likely to proceed with its scheme. The first contract will be worth $50,000, the next phase will probably be valued at $500,000, while the third phase is expected to be for several million dollars.

That money would be better spent on shoring up the Pentagon's defenses against electronic intrusions. Already, McDonnell Douglas Corp. is studying ways to protect the fighter aircraft it builds from viruses beamed by radio to their in-flight computers.

A Pentagon arsenal bristling with computer viruses is a great idea—for a Hollywood scriptwriter. But the Defense Dept. ought to spend its money on schemes based on common sense.

F YOU CONTROL . . . COMPUTERS, OU CONTROL THE WORLD'

aig Fields's zeal may fire up MCC, an industry research consortium

raig I. Fields is an intense, slightly built scientist who speaks with the fervor of a true believer. "If you trol microelectronics and computers," s Fields, "you control the world." h equal conviction, he believes that U. S. has bungled the task of keep- up its competitive might in these key ustries. That's why Fields used his ition as director of the Pentagon's fense Advanced Research jects Agency (DARPA) to mote U. S. electronics and niconductor companies ag- ssively—so aggressively, fact, that he was sacked in April by Pentagon brass o thought him out of line. Fields, 43, is now bringing trademark zeal to a new t, as president and chief hnical officer of Microelec- nics & Computer Technol- Corp. (MCC), a seven-year- research consortium with 65 million annual budget. seems like a small pond for h a big fish as Fields. But was lured by the challenge leading a cooperative in- stry effort to do the cut- g-edge research necessary stay afloat in global high- h markets. "He had a ice of jobs," says Robert Costello, a former Defense der Secretary. "But he's so mmitted to these issues t he's joining MCC, because C represents the new way doing things."

DERACHIEVER. Making MCC rk will test Fields's vaunt- intelligence. Set up on the anese model of companies ling resources to do basic earch, MCC is one of the st visible of American con- tiums, yet it has been an derachiever. The funda- ntal problem: Its 21 member compa- s, including Motorola, Digital Equip- nt, and General Electric, haven't been cooperative as their Japanese counter- ts. Secretive U. S. companies don't d their best researchers to the con- tium's Austin (Tex.) lab, and MCC sn't been able to recruit top-drawer entists from outside. So, while the lab s been able to make small strides, such as developing a new method for packaging chips, "it hasn't produced any silver bullets or breakthrough technology," says Michael A. Harrison, a computer scientist at the University of California at Berkeley.

Fields's task is both obvious and daunting: finding better scientists and putting them to work on the next generation of electronic breakthroughs. "I wanted someone who could hit two or three home runs a year," says Grant A. Dove, current MCC chairman and CEO, who will begin passing the reins over to Fields next year. MCC is already at work on neural networks and supercomputers, and Fields wants to upgrade these efforts. That will mean banging heads in member companies to pry loose top scientists and research secrets—and convincing new talent that MCC's labs aren't a scientific backwater. Fields's strategy: to tap his former colleagues at DARPA for help and to contract work to hot research teams within companies.

CAN FIELDS HIT THE HOME RUNS TO HELP KEEP THE U.S. COMPETITIVE?

STEVEN PUMPHREY

'BRILLIANT.' The MCC job may be a better home now for Fields than DARPA, where until this spring he spent his entire professional life. Formed in the post-sputnik panic of 1958, DARPA has funded high-risk work on everything from advanced computers to superconductivity. In the process, the $1.2 billion agency helped spawn such developments as computer graphics, bank cash machines, and workstations. "DARPA and Fields's record is a string of one brilliant idea after another," says George A. Keyworth, science adviser to former President Reagan.

In his 16 years at DARPA, Fields worked his way up to chief scientist before becoming director in May, 1989. He earned a reputation for working 80-hour weeks and behaving utterly unlike a timid bureaucrat, directly lobbying Congress and Cabinet secretaries for his pet ideas. But he could be impatient and abrasive in pursuing his goals—and he went too far too often. Believing that a strong military requires strong industry, Fields backed technologies with both military and commercial uses. When he channeled DARPA funds into Sematech, the semiconductor consortium, and into companies working on high-definition television, however, he invoked the wrath of Bush Administration purists, who vehemently oppose government support for targeted industries. The ax finally fell on Apr. 20.

Fields would rather focus on the future than the past. Dove's plans for MCC, which Fields will adopt, call for adding European companies as partners and signing up such technology-dependent companies as American Airlines Inc. and Federal Express Corp. It would be a major change for MCC but one that offers the chance to design new computer and communications systems tailored to customers' needs. Fields also plans to delve into such new areas as computer security and manufacturing technology. His new post will give DARPA's deposed director a chance to prove that his vision of boosting U. S. industry through cutting-edge research can actually work.

By John Carey in Washington and Jim Bartimo in Austin, Tex.

ENTREPRENEURS

BRUCE McNEIL'S PERSONAL TURNAROUND STORY

Although mentally impaired, he runs a business—and he has a dream

Bruce D. McNeil can't balance his checkbook. He can do simple multiplication, though he stumbles over his sevens. Spelling is a problem, too. When asked to spell a randomly chosen word, "briefly," he offers: "B-r-e-i-f-f-e-l-y." His IQ has been measured at 79, and he's considered mildly mentally handicapped. He's also a businessman.

Three years ago, he founded a tiny house-cleaning service in the coastal town of Gloucester, Mass. He employs 11 people off and on, all of them formerly homeless or alcohol abusers. His revenues last year totaled $31,000. But now McNeil, 30, is eyeing something bigger. He wants the U.S. Small Business Administration to lend him $140,000 to start a laundry service. He wants to wash, dry, fold, and deliver laundry to residential customers at $7 a load, about $2.10 less than the nearest rival. He figures he needs a five-person staff, and he intends to hire former street people and recovering alcoholics.

LONG ODDS. If he succeeds, McNeil will be one of the few mentally handicapped people—possibly the first—to receive an SBA loan. "If this loan is successful, it could encourage other handicapped people to do the same thing," says Marc N. Sandler, McNeil's attorney. The SBA says it's treating McNeil's application like any other. So far, it has rejected two applications, one for $200,000 and a second for $140,000, citing unrealistic sales projections, lack of collateral, and a high debt-to-net-worth ratio. The agency dictates that the ratio be no worse than 4 to 1. McNeil's was 23 to 1.

The rejections stunned McNeil. The SBA had helped him develop the first application, and his lawyer, Sandler, and an accountant, Howard Frisch, helped him with the second. After the initial loan was rejected, they lined up a $70,000 mortgage with a local bank to buy a building for the business if the loan was approved. McNeil also won a $25,000 grant from the Massachusetts Rehabilitation Commission. But the SBA again turned thumbs down.

McNeil isn't giving up. And considering where he's come from, it will be remarkable, but not surprising, if he wins. After a traumatic childhood in nearby Salem, Mass., he started living on the street, seeking solace in drugs and alcohol. At 19, he found a home with Jim Brien, a Gloucester man. McNeil still lives with Brien and has received special schooling and counseling.

After a traumatic childhood, McNeil spent years on the streets seeking solace in drugs and alcohol. "When you been through what I been through, you gotta be creative," he says

But McNeil has managed to overcome his mental handicap with the sheer force of an engaging and assertive personality. He talks a mile a minute about his vision of the future. "When you been through what I been through, you gotta be creative," he says. He started his business to try to help others break free from alcoholism or homelessness. "I identify with these people," he says. His employees are paid $6 to $15 an hour, and he gets what's left over: after expenses, $38 a week. If the SBA loan comes through, that would jump to $200.

McNeil's personal appeal has won the support of at least a dozen local executives. While Sandler handles McNeil's bookkeeping for a nominal fee and negotiates with the SBA pro bono, accountant Howard Frisch is developing new sales projections. Several suppliers to McNeil's house-cleaning service sell him their products at cost. And a Whirlpool Corp. distributor has agreed to sell him commercial washers and dryers at below-market rates.

McNeil works the phones like a pro. He persuaded Bruce Campbell, a traffic consultant to the City of Boston, to conduct a traffic study for him. Says Campbell: "He's a pretty convincing sort of guy."

'ADAMANT.' Sandler, meanwhile, is struggling to get the SBA to approve McNeil's loan. He argues that while the only equity McNeil brings to the venture is his own sweat, there would be collateral in the difference between the below-market price McNeil would pay for his building and its assessed value, and in planned improvements, such as a new floor, plumbing, and electrical work.

The SBA recommends that McNeil find an equity investor to reduce the government's exposure. Says Joseph D. Pellegrino, acting administrator for the SBA's New England region: "We'd like to see him be successful." But, he adds, "we have to look for reasonable assurance that the business will make a sufficient profit for the loan to be repaid."

McNeil's backers say he has the support he needs. James D. McGraw, a former Sheraton Corp. executive and a client of McNeil's house-cleaning service, says: "I think what Bruce is trying to do is extremely important. He's adamant about being a business and not being a charity." There's one word he has no trouble spelling: "P-r-o-f-i-t."

By Geoffrey Smith in Gloucester

It looks like this.

But it sounds like this.

AT&T can do the same for your fax machine's performance.

AT&T Enhanced FAX Service. Even the most elementary fax machine can do some very grand things. Because now it can be hooked up to AT&T Enhanced FAX, which can empower your machine with all the capabilities available through AT&T's Worldwide Intelligent Network.

And all you need to do is call our toll-free number and follow the easy voice prompts, which orchestrate the entire process.

You can store and retrieve messages from your own fax mailbox. Automatically redial a busy number. And send the same document to up to 1,000 destinations, worldwide.

And since it frees up both you and your machine, you can conduct business as usual.

One last note. AT&T Enhanced FAX is part of an extensive portfolio of services called AT&T Global Messaging, which will always be evolving and never become outdated.

So call **1 800 248-EFAX** to hear more about AT&T Enhanced FAX and how we can handle all your fax needs.

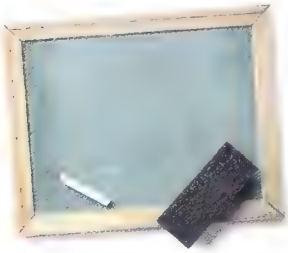
It'll be music to your ears.

AT&T
The right choice.

© 1990 AT&T

Why Compaq will ne
that simply

The way we see it, the so-so, the pretty good and the just plain average are things for someone else. Not for us. And most certainly not for you.



Before creating anything, we start with a clean slate, and talk to personal computer users like you.

That's the reason why every COMPAQ personal computer product ever introduced has been designed to deliver on a simple promise: to simply work better. It's what makes our high-performance PCs different from all the others.

The whole process starts with you.

Before we design our products, we sit down and talk with computer users like you. To see what you want. And what you need.

Then we take these ideas and combine them with the latest technology and our own innovative thinking.

The result is a line of PCs with the right performance for whatever you want to do. Performance that comes from more than just the processor. It includes features like high-speed disk drives and VGA graphics. Room to customize and upgrade with expansion cards and peripherals. And the compatibility to work with the best of industry-standard technology.

This attention to detail is one reason why our PCs consistently earn the highest marks for quality from computer experts. And unsurpassed marks for satisfaction from PC users.

COMPAQ personal computers earn an impressive number of industry awards. But it's all the things you can do with our PCs that's really impressive.

You'll see this thinking in every COMPAQ PC system, desktop, portable and laptop we introduce.

The new COMPAQ DESKPRO 386N and COMPAQ DESKPRO 286N are the first COMPAQ personal computers designed with specific network features. They're optimized to work in combination with the COMPAQ SYSTEMPRO PC System

The new COMPAQ SLT 386S/20, like all our laptops, is designed to fit where you work. Whether you're on the 35th floor overlooking Manhattan or at 35,000 feet over the Rockies.

er introduce a PC
vorks OK.

powerful COMPAQ desktop servers.

The COMPAQ SYSTEMPRO brings an un-
ecedented combination of performance and

And for the ultimate in portability, the 8½″ × 11″ COMPAQ LTE and COMPAQ LTE/286 put the performance of a desktop personal com-

No matter what you do, there's a COMPAQ PC system, desktop, portable or laptop that will help you work better.

xpandability to connected environments.

The new COMPAQ DESKPRO 386s/20 de-
livers power at the office
without taking over your
whole desk.

Every COMPAQ product is meticulously designed. Ideas that don't measure up will wind up here, not in your office.

The new COMPAQ SLT 386s/20 laptop lets
ou put that same high performance to work on
e road or on your desk. Without compromising
nctionality or size.

puter in your briefcase. With room to spare.

All told, every COMPAQ PC ever introduced offers the difference between simply working OK and simply working better.

A worldwide network of Authorized Dealers is ready and waiting to help you.

For more information and the location of an Authorized COMPAQ Computer Dealer, call 1-800-231-0900, Operator 117. In Canada, 1-800-263-5868, Operator 117.

COMPAQ

It simply works better.

of electronic equipment on board commercial aircraft is at the discretion of each airline. ©1990 Compaq Computer Corporation. All rights reserved.

In Business This Week

EDITED BY HARRIS COLLINGWOOD

CONVICTED: USX AND TWO USW OFFICIALS

▶ After a four-month criminal trial, a federal jury in Birmingham, Ala., convicted USX and two United Steelworkers district officials of violating federal labor statutes. The unusual case grew out of a 1983 negotiation in which Thermon Phillips and E. B. Rich, the top officials of USW District 36, granted concessions in a contract covering USX's Fairfield (Ala.) works.

The government contended that in 1984, USX illegally gave company pensions to Phillips, Rich, and four union staff members as a "reward" for the Fairfield agreement. USX, Phillips, and Rich were found guilty of conspiracy and of violating the Taft-Hartley Act of 1947, under which certain company payments to union representatives are illegal. The defendants said they would appeal. USX and the USW still face a civil suit over the pact.

MORE WRITE-OFFS FOR AMERICAN BANKS

▶ The tough banking environment just got tougher. On July 11, U. S. regulators ordered American banks to write off 20% of their loans to Argentina and Brazil. In the case of $2.9 billion worth of loans to Argentina, the move comes as no surprise—this is the third such write-down. But this is the first write-down required on $11.1 billion in Brazilian loans, and many banks may have to add to reserves. That, in turn, could be bad news for bank earnings.

IT'S SONGWRITERS AGAINST SONY

▶ Songwriter Hal David, who once mused that "What the World Needs Now is Love," figures that what it doesn't need is the digital audio tape recorder. David, along with a group of songwriters and music publishers, on July 9 filed a class action against Sony to protect that song and others from the legions of home tapers who can use DAT recorders to make perfect copies of compact discs—without paying royalties to composers. It wants Sony to stop selling the machines. Sony, which shipped the first DAT decks to dealers in late June (page 81), counters that Americans have been taping music at home without challenge for more than 30 years.

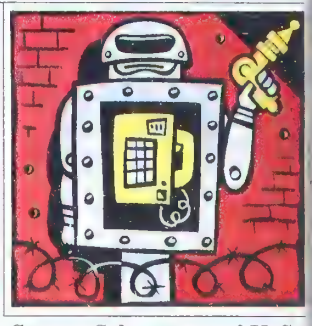
WILL COKE BE IT FOR THE FALCONS?

▶ Is a National Football League franchise in the cards for Coca-Cola? BUSINESS WEEK has learned that two children of Rankin Smith, principal owner of the Atlanta Falcons, have hired Salomon Brothers to sell their 30% stake in the team. And they'd prefer a local buyer—like the Atlanta-based soft-drink company. The asking price is $37.5 million, including the right of first refusal for the remainder of the team.

Current NFL rules prohibit team ownership by corporations with interests separate from football operations. But NFL Commissioner Paul Tagliabue has publicly raised the possibility that companies like Coca-Cola and Disney may some day own NFL teams.

Coca-Cola isn't talking. But if the NFL permits some form of corporate ownership, Coke could make a strong candidate for the 30% stake. At an indicated value of $125 million for the entire team, a sale would be a windfall for the Smith family, which paid $8.5 million for the expansion franchise 25 years ago.

DEPOSIT THREE MORE M-80s, PLEASE



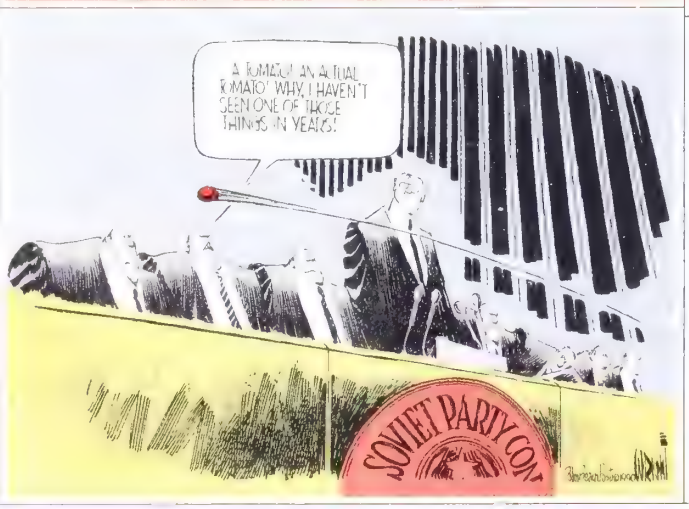
When you get right down to it, what is a pay phone, anyway? Sure, it's a telephone, but it's also a metal box stuffed with money. Money that belongs to the phone's owners, who tend to get a bit miffed when a thief breaks into the coin receptacle and makes off with a pile of quarters. Miffed, perhaps, but philosophical: "There are times, like the Fourth of July, when it's fun to blow up a pay phone," says George Colony, CEO of U. S. Communications, which has coin phones in 30 states.

Colony buys much of his equipment from Intellicall, which has developed RoboPhone, a pay phone that comes reinforced with 20 pounds of extra steel. He thinks it's a great machine. This past Independence Day, only 70 of his phones suffered blast damage, compared with 170 last year. And the damage came only after repeated applications of fireworks. "It cost them as much as it costs me," crows Colony.

BIOTECH BREATHES EASIER

▶ Biotech researchers sighed in relief after the California Supreme Court ruled 5-2 that patients have no rights to profits from drugs developed from their body tissue. The July 9 decision said that extending property rights to body parts could destroy economic incentives for important medical research.

But the court unanimously decided that a patient could sue a doctor who failed to tell patients about his interest in potential commercialization. Former leukemia patient John Moore sued his doctor, David Golde, and two drug companies after learning that his spleen cells were used to develop and commercialize a cancer-fighting protein.



WHAT APPLE HAS UP ITS SLEEVE

▶ Do you like a good mystery? Apple Computer has one: It said on July 11 that three of its technology wizards have launched a company called General Magic to develop "Personal Intelligent Communicators." The trouble is, Magic's founders aren't saying what that means. One source speculates that they're working on cellular and facsimile technology.

Apple must know something, though: It holds a minority stake in the spinoff and has first dibs on licensing the mysterious new product. ▣

EDITED BY STEPHEN H. WILDSTROM

EAR AND LOATHING N LOUISIANA

Just what's going on in Louisiana? Legislators almost pass a bill that makes assault on a flag-burner a mere $25 offense, which civil libertarians see as an invitation to mob lence. The legislators also pass the first state law restrict- sales of objectionable rock music.

Then, in the midst of a national spectacle that featured nonstrators from both sides camping on the capitol lawn, y approve a harsh statute that could send a doctor to prison 10 years for performing an abortion. If t isn't enough, renegade Republican Da- E. Duke, a former imperial wizard of Ku Klux Klan, is making a strong run a U. S. Senate seat.

Poverty and resentment have often pro- ced an explosive brand of bayou popu- n in Louisiana. And now, it's on the rise ain. The state is still suffering badly m the mid-1980s collapse of oil and gas ces. Unlike neighboring Texas, which in- sted its oil-boom revenues to diversify its nomy, Louisiana failed to improve its ucational system and infrastructure dur- the good years.

Democratic Governor Buddy Roemer, o ran as a reformer, won the statehouse in 1987 with just % of the vote when Governor Edwin Edwards pulled out of unoff. Roemer set out to overhaul an archaic tax system to nd collapsing state services. But he was slapped down by legislature and by voters in a series of referendums. He s never regained his political equilibrium.

In the ensuing power vacuum, the legislature has run wild. wmakers started this year's session by trashing the gover- r's budget. It ousted his hand-picked Senate president. Leg- ators then turned to the flag, rock 'n' roll, and abortion. Egged on by national antiabortion groups seeking a test se for the U. S. Supreme Court, the legislature outlawed all ortions—despite polls showing that a slight majority of Lou- anans oppose severe restrictions. When Roemer's veto was upheld, lawmakers sent him a revised version allowing exceptions for cases of rape and incest. The legislation is so flawed, however, that it may not become a federal test case, and Roemer chief of staff P. J. Mills says the governor may let the measure become law without his signature.

GOVERNOR ROEMER: POWER VACUUM?

'WE'RE REGRESSING.' Although the legislature scattered on July 10, the polarization of Louisiana politics will continue. The focus is now on the Senate race between Duke and Democratic incumbent J. Bennett Johnston. By blasting racial hiring preferences and tax hikes, and attacking corporate polluters, Duke has attracted support from resentful whites. Duke, says Tulane University historian Lawrence N. Powell, "has already broken into much of the working class and is starting to shear off the middle class."

Through Mar. 31 of this year, Duke's campaign had raised nearly $600,000, nearly all of it in small individual contributions. Pollster Edward Renwick of Loyola University in New Orleans predicts Duke will draw 30% to 35% of the vote in the Oct. 6 primary. That would likely throw him into a runoff with Johnston. Three-term veteran Johnston is expected to win, but only after a campaign that will heighten racial and class divisions. "Duke is capitalizing on frustration," says Mills. "We're regressing."

The turmoil has already cost the state. The abortion vote helped seal the Democratic Party's decision to hold its 1992 convention in New York rather than in New Orleans. And Louisiana's revived image as a backwater could cost New Orleans' increasingly important tourist and convention business dearly.

As long as the bad times roll, the good ol' boys in Baton Rouge are likely to indulge in corrosive politics. Louisiana might be better off if they tackled some of the economic problems that are causing the state such misery.

By Mark Ivey and Paula Dwyer, with David Dodson

PITAL WRAPUP

LEAN AIR

Anyone hoping for a quick House-Senate conference agreement on ew clean-air legislation is in for a dis- ppointment. House Speaker Thomas Foley (D-Wash.) all but guaranteed hat the road to final passage would be ng and laborious when he appointed 40 representatives—a third of the ouse—to the conference committee. he Senate is making do with nine con- erees. The unwieldy House delegation nsures that most of the work will be one in a series of subconferences that ill insiders expect to run right up to ongress' scheduled Oct. 5 adjourn- nent. The conference must reconcile House and Senate versions that differ in their requirements for use of alternative fuels in motor vehicles and restrictions on smog-producing industrial emissions.

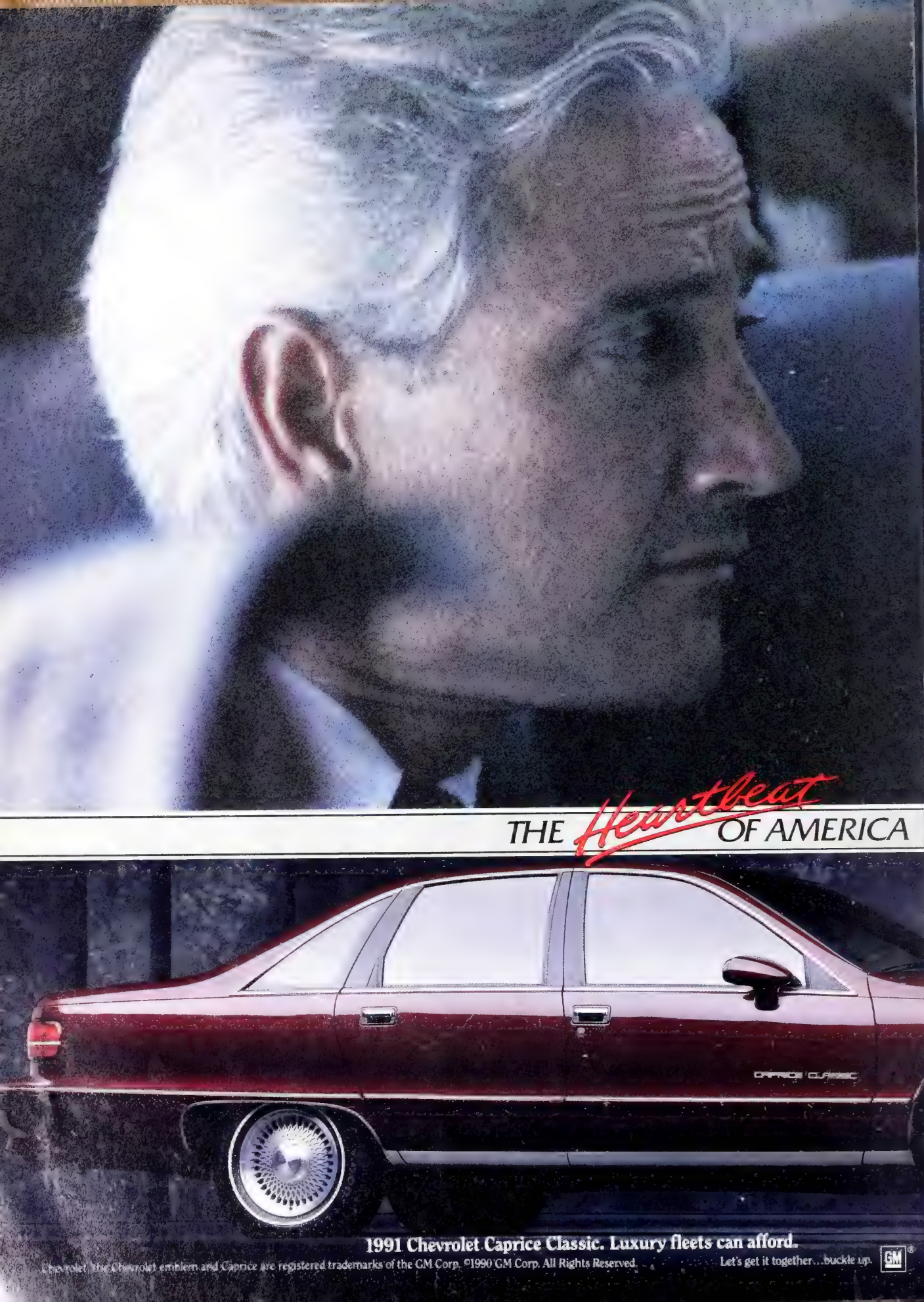
SPACE

Budget Director Richard G. Darman often puts his penny-pinching ways aside when it comes to funding space programs. But these days, he might be wishing he hadn't gushed quite so enthusiastically in May about the newly launched Hubble Space Telescope. In a speech at Harvard University, Darman called the badly astigmatic Hubble "a metaphor for a renewed spirit of exploration."

REGULATION

The Bush Administration's attempt to realign securities regulation seems doomed, at least for this year. The Administration launched a major effort to move regulation of stock-index futures trading from the Commodity Futures Trading Commission to the Securities & Exchange Commission. But tough lobbying by the Chicago futures markets—and a less than all-out effort from Wall Street—have killed the initiative. Although chances for getting a bill through the House this year are nil, the Administration is still hoping that Senate action will set the stage for a fresh try in 1991.

TOBY ARMSTRONG


THE Heartbeat OF AMERICA
1991 Chevrolet Caprice Classic. Luxury fleets can afford.
Chevrolet, the Chevrolet emblem and Caprice are registered trademarks of the GM Corp. ©1990 GM Corp. All Rights Reserved.
Let's get it together...buckle up.
GM

Ve wanted a luxury car
ve could afford. That's
vhy we called Chevrolet."

S WINNING.™ TODAY'S FLEET COMPANY IS CHEVROLET.

It is longer, wider and roomier than the Caprice it replaces, and a generation more erodynamically efficient. Helping make it the most spacious Caprice ever built. As ell as the quietest.

It has V8 power and the exceptional ride qualities of rear drive and separate body-on-frame construction. Coupled with the technical sophistication of standard Bosch ABS 4-wheel anti-lock brake system and driver's-side Supplemental Inflatable Restraint System (air bag). Available luxuries include leather seating areas and electronic keyless entry. Clearly the time had come for a new Caprice. And when you see its affordable price, you'll see it could only have come from Chevrolet.

Call Chevrolet Fleet Sales, 1-800-248-2897. No one has a car like our new 1991 Caprice. Absolutely no one.

JAPAN

JAPAN HINTS THAT IT'S WILLING TO PICK UP THE U.S.'s SLACK

IS JAPAN BECOMING THE ONLY RUNNER IN THE ARMS RACE?

An LDP official's suggestion to freeze military spending sets a debate raging

For years, the U. S. pounded on Japan to spend more on defense against the Soviet Union. The pushing and shoving got results: Japan emerged as the world's third-largest military spender after the U. S. and Soviet Union.

Now, as Americans, Soviets, and Europeans are serving up peace dividends, an unusually rancorous debate has erupted in Japan about whether its buildup should continue. At stake are billions of dollars worth of sales for U. S. companies such as Boeing, United Technologies, and General Electric, as well as the future of U. S.-Japanese security relations. Asian countries, fearful of a Japan that is too strong militarily, are watching closely, as is Soviet leader Mikhail Gorbachev, who plans a Tokyo visit in 1991.

Japan's debate emerged from behind closed doors in early July when Liberal Democratic Party power broker Shin Kanemaru suggested that there was no need to continue big spending increases for the next five-year defense plan. Japan should freeze defense outlays, suggested Kanemaru, whose crafty public statements typically signal major policy fights. Earlier, he hinted that Japan should settle for recovering only two of the four Soviet-occupied islands near Japan's northern shore to resolve a contentious issue with Moscow.

PAPER TIGER? Japan Defense Agency officials were aghast. Their five-year plan calls for spending upwards of $150 billion, which means real annual increases of 4% through 1996, compared with cuts of more than 10% for the U. S. over the same period. Japanese officials argue that the Soviets have modernized their Pacific forces even while cutting their size. Warns a JDA official: "The Soviets maintain a huge military capacity in the area, and they are still upgrading it."

Although Japan spends only 1.006% of its gross national product on defense, the sheer size of its economy and the inclusion of other support costs have pushed Japan into the military big leagues. Japan produced 100 P-3C antisubmarine aircraft, for example, under license from Lockheed Corp. It has purchased or built 430 tactical fighters, including more than 100 of the most modern F-15s, and is codesigning a new FSX ground support fighter with General Dynamics Corp. Aside from developing and building some of the world's best naval guided missiles, Japan also has begun buying U.S.-made Aegis systems to protect its ships from Soviet bombers. As a result, Japan's conventional forces are East Asia's most modern after those of the U. S. and the Soviet Union.

The Bush Administration has not yet come to grips with the issue of Japan's

v spending plan. The Pentagon is hting budget-cutting pressure to intain its own strength in the area. t it already has signaled it will pull 15,000 troops from South Korea, Ja-, and the Philippines—an 11% reduc-—over the next three years. The ntagon wants Japan to continue im-ving its ability to defend itself and lanes within 1,000 miles, but without aining or building weapon systems t would disturb the regional balance power.

But other American officials worry t Japan will rush to fill a vacuum ated by U. S. withdrawals, becoming powerful. Whether the U. S. will ac-e to smaller Japanese defense bud-s or press Tokyo to keep spending sk will be thrashed out by the De-se Dept. with the State Dept. and the tional Security Council. Their policy iew has barely started because Wash-ton's attention has focused so heavily Europe.

GER BANGS. The U. S. commercial in-est, however, is clear. Many U. S. mil-y contractors are counting on larger ers from Japan, already over $1 bil-a year, to offset cutbacks in U. S. vernment spending. Boeing Co. wants sell Airborne Warning & Control Sys-ns (AWACS) to Japan for the first time to increase sales of its CH-47 Chi-ok helicopters. United Technologies' tt & Whitney is competing against to make jet engines for the new FSX hter. U. S. contractors also hope to refueling tankers, multiple-launch kets, and other front-line military dware.

As a December deadline for submit-g a five-year defense plan to the Cabi-t-level Security Council of Japan ws near, most observers think Tokyo l opt for a program that is palatable Washington. Japan's leaders, for ex-ple, have shown a willingness to st its share of costs to support U. S. ces in Japan, from 40% to one-half of ne $6 billion a year. The compromise not driven by defense concerns alone. kyo understands that in the past the urity relationship has shielded Japan m U. S. trade retaliation.

So when push comes to shove, it ems likely that Japan will continue its itary buildup with smaller but contin-l increases. Predicts Joseph T. Gor-n, chairman and CEO of U. S. contrac-TRW Inc.: "I'd be willing to bet my ary—or almost anything—that Japa-se defense spending as a percentage GNP will go up over this decade." If s right, Japan will emerge as the in-strial world's only major power still reasing its military punch.

By Neil Gross in Tokyo, with Dave Grif-ns and Amy Borrus in Washington, and reau reports

Commentary/by Jonathan B. Levine

IT'S CRUNCH TIME FOR EUROPE'S HIGH-TECH GIANTS

After crippling slumps in the early 1980s, Europe's computer and semiconductor makers vowed to do whatever it took to meet the challenge of global competition. But so far they've only succeeded at one thing for sure: getting governments to pump cash into joint-research programs while erecting trade barriers to buy time.

Now, Europe can no longer lean on such crutches. The projected loss this year of about $1 billion at Dutch electronics giant Philips has Continental techies shivering. For Philips' difficulties, largely due to the botched management of chips and computers, strip bare the truth: Even Europe's giants still don't have enough critical mass.

WEST GERMAN MEGACHIPS

Europe needs to live with fewer chip and computer makers. By the late 1990s, Europe's half-dozen major computer companies will certainly have dwindled, and its three big chipmakers may have to do costly production jointly. More and tighter linkages, or even mergers, look inevitable.

WRONG CHOICE. Europeans also have to make technology alliances pay off, and they must be less xenophobic about taking foreign help. Philips didn't understand that well enough, and it—and Europe—are paying the price now. From 1985 to 1989, Philips, Siemens, and the Dutch and West German governments spent $2.5 billion on a joint project to catch up with Japan in memory chips. Both companies had trouble. To recoup, Siemens licensed technology from Japan's Toshiba Corp. early on. But Philips decided to go it alone. Last year, once-stodgy Siemens was the fastest-growing major chip company while Philips floundered.

Now, Europe is pouring $4 billion into the Joint European Submicron Silicon project (JESSI), an eight-year joint development plan to keep European chip companies from being wiped out. One good sign is that the Europeans let in IBM. But, for JESSI to succeed, the money needs to be targeted to fewer companies, and even more cooperation is needed. Savvy Siemens has signed its own deal with IBM to make sure it keeps up with the Japanese. "Our JESSI partners could not help us develop DRAM [dynamic random-access memories] technology," says Siemens semiconductor head Jürgen Knorr.

Tough trade policies can no longer substitute for hard choices. During the 1980s, antidumping penalties, local-content requirements, and public-procurement policies favoring domestic makers helped fend off Asian imports. But now most Japanese companies have European plants, and Europeans have to compete with them. Rather than using technology deals to fight back as Siemens did, however, Europe seems to be getting addicted to Japanese technology. Most European mainframes use Japanese processors, for instance. And many companies have gotten fat. Philips is cutting 10,000 jobs to catch up, but outsiders say the company should hack out five times that many.

When a single market opens after 1992, the competitive blast will really hit. Lured by rosy growth forecasts for Western and Eastern Europe, aggressive U. S. computer companies such as Digital Equipment, Hewlett-Packard, and Compaq Computer invested heavily on the Continent last year, and their sales grew by 20% or more—over three times faster than Siemens, France's Groupe Bull, and Italy's Olivetti.

In chips, the big worry is that Europe's stronger high-technology industries—such as consumer electronics and telecommunications—will be held hostage to foreign chipmakers. Europe's chipmakers supply less than one-third of its needs, and Japan is gaining fast.

Facing reality may mean swallowing pride, but the alternative clearly is falling further behind. To most Europeans, that can no longer be a choice.

PATRICK LA BANCA

BRITAIN

THE BRITISH MIRACLE BOGS DOWN IN BANKRUPTCY

The hot growth companies of the 1980s are going under at a record rate

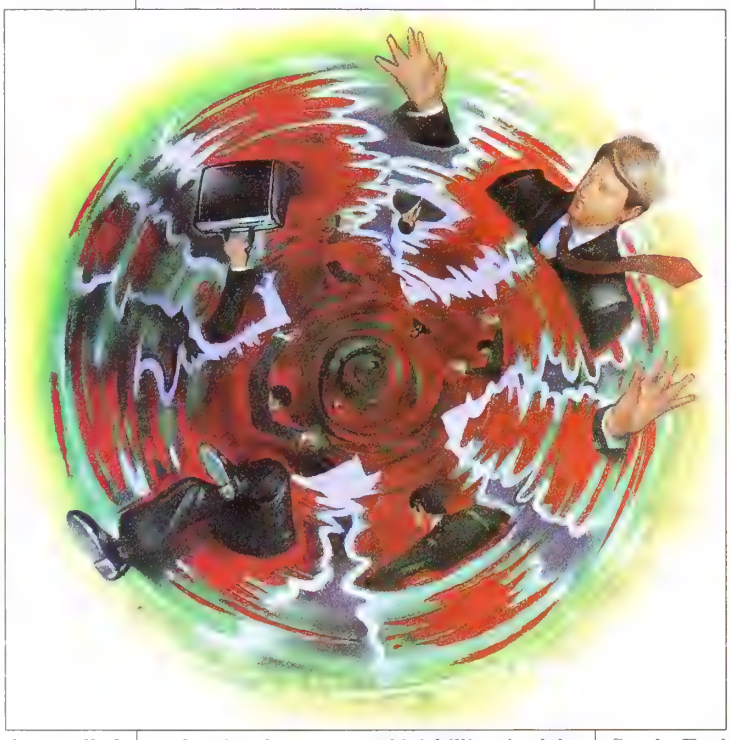
Sophie Mirman, founder of niche retailer Sock Shop International and 1988's Businesswoman of the Year, is no longer her own boss. Today, half of Sock Shop's 108 British outlets and all of its 17 U. S. stores are shuttered, closed by outside administrators trying to salvage the once-hot growth company. Meanwhile, John Ashcroft, once singled out by Prime Minister Margaret Thatcher as an entrepreneurial hero, has seen his formerly high-flying home-products company, Coloroll PLC, go into liquidation.

If there's any doubt that Britain's go-go '80s—years of unbridled optimism, heady growth, and bull markets—are over, the steadily mounting financial obituaries of leading entrepreneurs seem evidence enough. Besides Ashcroft and Mirman, there are the brothers Saatchi, retailer Sir Terence Conran, and John Gunn, whose financial empire, British & Commonwealth Holdings PLC, collapsed in early June. It was the largest corporate failure ever in Britain.

DOUBLE WHAMMY. Together, these entrepreneurs embodied the bold, risk-taking spirit extolled by Thatcher. She was banking on young, fast-growing companies to create a British economic renaissance. But with business failures rising, these would-be mentors for the new-enterprise culture are rapidly fading from the scene (chart). The trend is particularly damaging to Thatcher's hopes of recasting the economy beyond manufacturing because most of the failures are in service industries.

The government's determination to keep interest rates—now 15%—high to try to get inflation down is creating a double whammy. The rates are savaging balance sheets while sending the pound soaring against the mark and the dollar, hampering exports.

The damage is now spreading beyond retailing and financial services to homebuilding and manufacturing. Coloroll, which rode the cheap money of the late 1980s to make a series of acquisitions in Britain and the U. S., collapsed in June as its sales of carpeting and furniture failed to support its punishing debt load of about $720 million. Similarly, Gunn built British & Commonwealth into a sprawling collection of companies anchored in financial services and computer leasing but ran up $2.6 billion in debt to do it.



There's more to it than high rates. The accolades for management achievement that the onetime heroes racked up now appear wildly misplaced. A widespread failing: Thin management teams, often egged on by eager bankers, became impossibly stretched as they expanded on the back of cheap money and easy stock market paper. This happened to managers at Sock Shop as they rushed to open outlets abroad and at Saatchi & Saatchi PLC as it diversified into management consulting. "[The managers] got into a cult of personality that fed their egos and led them to believe they had business abilities they didn't have," notes John A Kay, director of the Center for Business Strategy at London Business School When problems appeared, the go-go managers either failed to adjust fast enough or didn't recognize them.

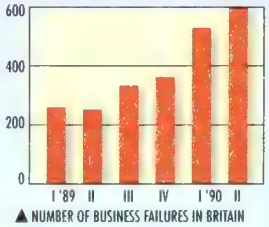
Specialty retailers have been particularly hard hit. Former retailer of the year George Davies made his Next PLC chain of trendy clothing and jewelry shops a retail sensation only to run into fierce competition and a misguided diversification strategy. Davies is out, and Next shares are near an all-time low. Then there's Filofax PLC, maker of loose-leaf personal organizers. Founder-Chairman David Collischon laments that Filofax was saddled with the "dreadful yuppie image" when new, price-conscious entrants jumped into the market and undercut him. "We should have recognized what was going to happen and tried to take the middle ground," he says ruefully. In late June, Filofax agreed to a bailout that values it at $7.5 million, one-fourth the price it went public at in 1987.

RIPPLE EFFECT. The fallout from the demise of fast-growth companies is rippling through the economy. Brokers UBS Phillips & Drew reckon that Britain's Big Four banks' exposure to bad debts from troubled companies will rise 62% this year, to $2.3 billion. Worse, investors are starting to shun the new companies that Thatcher has been banking on. The market for small companies has underperformed the London Stock Exchange by 28% over the past year, according to Salomon Brothers Inc. With bank financing often too expensive and equity markets closed to many young companies, the British are at "a major disadvantage" to their Continental competitors, says Ronald Cohen, chairman of venture capital house Alan Patricof Associates Ltd.

In one sense, the high rate of business failure is a natural spinoff of Britain's high rate of startups. But it seems there will be fewer startups and more company failures. And as the business stars die off, so will Britain's hopes of brightening its economy.

By Richard A. Melcher, with Mark Maremont, in London

THE RISING TIDE OF FAILURES



▲ NUMBER OF BUSINESS FAILURES IN BRITAIN

DATA: KPMG PEAT MARWICK McLINTOCK

Europe's No. 1

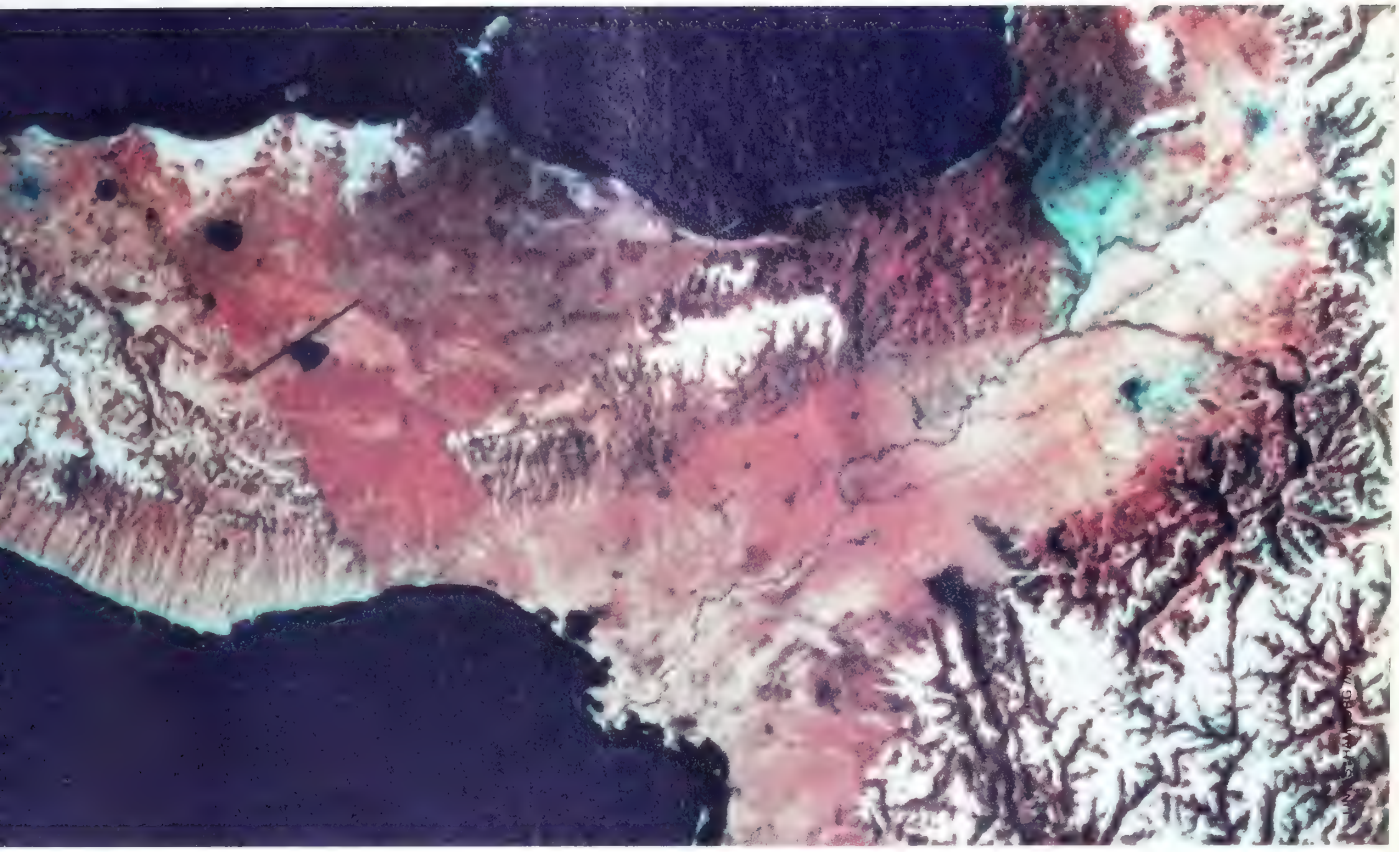
insures

your risk.

Allianz worldwide

Argentina
Australia
Austria
Belgium
Bermuda
Brazil
Canada
Chile
Denmark
Egypt
France
Germany
Great Britain
Greece
Hong Kong
Hungary
Indonesia
Ireland
Italy
Japan
Liechtenstein
Mexico
Netherlands
New Zealand
Norway
Peru
Portugal
Saudi Arabia
Singapore
South Africa
Spain
Sweden
Switzerland
Tunisia
Turkey
U. Arab Emirates
USA
Venezuela
worldwide

Taking a look around.



The degree of risk often depends on the location. So our experts take a good look at a project's surroundings. For 100 years careful work plus comprehensive technical and financial resources have made Allianz a proven partner for business.

Chance has played no role in making us the leader in the demanding European market. Nowadays, Allianz insures major industrial and technical projects all over the world.

Allianz

EUROPE'S LEADING INSURANCE COMPANY

PHILIPPINES

HOW LONG CAN AQUINO KEEP TAKING IT ON THE CHIN?

Guerrillas and horrific red tape have foreign investors running scared

President Corazon Aquino had high hopes of charming American business into pumping badly needed capital into the Philippines when she visited the U. S. in November. But weeks later mutinous soldiers seized Manila's financial district and riddled offices with gunfire. One bullet landed in the office of Mark C. Blacker, executive director of American Express Bank affiliate Interbank and chairman of the American Chamber of Commerce.

Now, the bad news is coming in torrents, threatening the Philippine economy and Aquino's political future. One by one, some of the country's best hopes for big foreign projects are unraveling. Jose Concepcion, the Trade & Industry Secretary, announced that Ford Motor Co. had dropped the Philippines as a site for a $150 million auto-parts plant, though Ford denies having any plans to invest there. Meanwhile, Cogentrix Inc. backed out of a $340 million power plant with Caltex Petroleum Corp. that would have eased the nation's electricity shortage. These join a list of stalled projects that includes a $360 million Taiwanese petrochemical plant.

More distressing, U. S. executives have become the targets of terrorists as talks over the fate of U. S. naval and air bases approach. Until recently, the left-wing New Peoples Army guerrillas focused on U. S. military personnel, seven of whom have been murdered over the past three years. But the June 28 pullout of all 261 Peace Corps volunteers, and the kidnapping and possible slaying of one, confirmed that guerrillas are starting to gun for civilians. An angry Aquino called the pullout "hasty," and her spokesman accused Washington of trying to strengthen its bargaining position over U. S. military bases.

But sources in Manila told BUSINESS WEEK that dozens of U. S. businessmen appeared on a terrorist hit list. One of them, AmCham's Blacker, has temporarily left the country, and another Chamber executive left after getting a death threat. An anonymous threat to an expatriate bar owner was enough to prompt the U. S. Embassy to warn Americans to avoid Ermita, a popular night-life district.

A PHILIPPINE GUERRILLA: RECENTLY, U.S. EXECUTIVES HAVE BECOME TARGETS

BILLIONS AT STAKE. Concepcion says security fears are overblown. "I feel more afraid riding the New York subways than I ever felt in Manila," the trade secretary snaps.

But the increased perception of the Philippines as a tinderbox means Aquino will be lucky to get even half of the $6 billion in foreign investment that her government had sought for 1990. The U. S. now ranks behind Japan and Taiwan in new investment, and big companies such as General Electric Co. have moved their regional headquarters elsewhere in Asia. One veteran Manila-based consultant calls investor confidence "the lowest I've ever seen."

One big reason is bureaucratic infighting and red tape. Cogentrix, a privately held company based in Charlotte, N. C., gave up on the power plant after it became clear that delays in the negotiations and environmental-impact studies could prevent the company from moving ahead for years. Says Cogentrix Vice-President Randy Perkins: "They need projects like this, but they aren't prepared to put them on a fast track."

In June, Taiwan's USI Far East Corp. put on ice its decade-long involvement in the petrochemical scheme when the chairman of the government-owned Philippine National Bank accused Concepcion of arranging overly generous financing. Japan's Marubeni Corp.'s plan to build an ambitious industrial park has been delayed by similar squabbling. "The point is these are supposed to be done deals," fumes a U. S. banker.

GROWING OPPOSITION. With elections due in 1992, Aquino has been counting on economic growth to ease her mounting political problems. After growing by 6% annually in her first three years in office, the economy is slowing, while inflation is at 13.5%. Polls show her popularity dropping below 50% for the first time since she toppled President Ferdinand Marcos in 1986.

Desperate to resuscitate People Power, the grass-roots movement that brought her to power, Aquino launched a new movement to ram reforms and development projects through the bureaucracy. But in so doing, she has alienated Cabinet ministers and key legislators, who helped her get elected. Political analysts say an opposition movement started by old Marcos cronies such as former billionaire Eduardo Cojuango could mount a serious challenge at the ballot box.

The acquittal of former First Lady Imelda Marcos in New York on charges of using Philippine government money to buy New York real estate also has put Aquino under pressure to let Marcos return to the Philippines to stand trial and perhaps revive the Marcos political fortunes. Although so far no U. S. companies have actually left the country, Corazon Aquino's last chance to hold her government and her economy together is at hand.

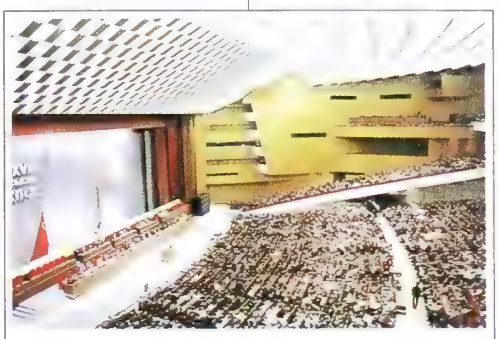
By Pete Engardio, with Teresa Albor, in Manila

EDITED BY PETER GALUSZKA

VILL PRESIDENT GORBACHEV SUCCEED VHERE COMRADE GORBACHEV FAILED?

Upstairs at the Kremlin's Palace of Congresses, the debate was fast and furious over whether the Communist Party should abandon its control of the army, KGB, and lice. Downstairs in the great hall, conservative after conser-tive blasted Mikhail Gorbachev for the "breakup of social-n." In the lobby, small groups of liberals whispered darkly out the specter of widespread strikes or a *coup d'etat.* But r all the heated exchanges, the 28th Congress of the Soviet mmunist Party produced few answers to the political crisis d economic collapse looming just be-nd the Kremlin walls.

For the first time in 72 years, the mmunist Party couldn't assert itself. wonder. It is in steep decline, dis-usted by at least 70% of the people, lls show. Since early 1989, nearly 1 llion Communists have turned in eir cards, thinning the ranks to about million. Dozens of party secretaries ve been sacked in the wake of popu-r protests. At the congress, the scale-ck of the party's political power was infully evident. Said Teimuraz Ava-ni, a congress delegate whom Gorbachev defeated handily in election for party general secretary: "People have lost ith. Can it be true that in such a big country, with 300 llion, there is no alternative to Gorbachev?"



THE PARTY CONGRESS: THINNING RANKS

OT JUST LIP SERVICE.' After more than a week of sharp iticism, Gorbachev seized the high ground. He avoided a alkout by radical delegates. He won backing for a plan to pand the 12-member Politburo to a broader, 23-member oup that includes the party first secretaries of the Soviet nion's 15 republics. That will dilute the Politburo's power and ansform it from being a tight, Moscow-centered club. Key *restroika* political figures such as Foreign Minister Eduard evardnadze and strategist Alexander Yakovlev may aban-n their Politburo posts to spend more time on the Presiden-l Council of the newly invigorated Soviet government.

Such moves only underscore Gorbachev's crucial attempt to shift power away from the party toward popularly elected parliaments and his office of President, created in February. Whether old-line Communists like it or not, local and regional elected parliaments are assuming control. From Leningrad to the Soviet Far East, Communist offices that once controlled industry, farming, and public affairs are being shuttered Says Stanislav Gurenko, newly elected first secretary of the Ukraine Communist Party: "We are not just paying lip service to the transfer of powers to those people who were democratically elected."

The question now is how Gorbachev will use the new presidential powers that he has so far barely touched. He could employ them to bypass party foot-draggers and expedite true economic reforms, such as privatizing industry and farming.

Even more important, Gorbachev could use his power to hold the country together. So far, the Russian Republic, Uzbekistan, Moldavia, and the three Baltic states have issued declarations of "sovereignty," while ethnic strife continues to flare in the Caucasus and Central Asia. One avenue open for Gorbachev is the negotiation for a new national treaty.

Under such a pact, the republics could negotiate their own trade treaties, introduce currencies, and follow paths to reform at their own pace. Gorbachev would be responsible primarily for foreign policy and defense and could act as an arbiter in inter-republic disputes. The new treaty may determine the very survival of the Soviet Union, whose future depends on the "controlled transition from empire to confederation," according to radical historian Yuri Afanasiev. But the treaty process will be both exhausting and dangerous. After 72 years of being on top, party traditionalists and generals will still seek ways to put a brake on change.

By Rose Brady in Moscow, with Gail E. Schares in Vienna

LOBAL WRAPUP

BRAZIL

An unprecedented wave of kidnappings of well-off executives is sweeping Rio de Janeiro, adding to fears already heightened by an economic slump and the government's inflation-busting austerity plan. In the past four months, close to 30 Brazilian executives have been ransomed for amounts ranging as high as $8 million. No one has yet been harmed, and no foreign managers have been swept up yet, but many are taking on bodyguards and stepping up their security. Meanwhile, the government has launched new legislation to make kidnapping a federal crime, stiffen prison sentences, and make it illegal to draw funds from bank accounts for ransom payments. Some of the cases are believed to be masterminded by organized-crime figures already in jail. Police also say that some proceeds of the nabbings have been used to finance the city's burgeoning cocaine trade.

EAST GERMANY

The small, idealistic East German political parties that spearheaded last fall's historic upheavals may be the first victims of a reunified Germany. Groups such as the Neues Forum and Bündnis 90 have no hope of gaining Bundestag seats in German elections if they have to win 5% of votes throughout both Germanys. Even the communist's Democratic Socialists and the centrist German Social Union will be hard pushed to make the cut.

Forcing the issue is the East German Social Democratic Party, which insists that East and West Germany operate under the same election law. The SPD put tough choices before Christian Democratic Union Prime Minister Lothar de Maizière: If he won't accept the 5% rule—as required under the German constitution—the SPD may abandon the broad-based coalition government that leads East Germany. But de Maizière needs the SPD's support to ratify an intermediate treaty that continues the reunification process.

GWENDOLYN STEWART

AIRWAVE WARS

TOO MANY NEW TECHNOLOGIES, TOO FEW BANDS

In 1987, United Parcel Service Inc. devised a scheme to transform its paper-and-pencil operation into the package-delivery system of the future. Drivers would no longer call in from phone booths. Instead, 55,000 UPS trucks would be fitted with radio receivers and transmitters, enabling the nation's No. 1 private package carrier to give customers up-to-the-second information about deliveries. But the master plan had a major flaw: Ham radio buffs occupied the air space that the Federal Communications Commission wanted to allocate to services such as UPS's.

And they weren't going to relinquish it without a fight. The 170,000-member American Radio Relay League galvanized ham radio operators around the country. They picketed federal buildings in Chicago, Omaha, and Cincinnati, deluged the FCC, Congress, and the White House with letters, and challenged the decision in federal court. "If the people who are in charge of the spectrum were in charge of land usage, there would be no nature trails," declares Art B. Reise, a ham radio operator from New Lenox, Ill., who organized the protest. "It would all be developed out and strip-mined."

LIFE OR DEATH. UPS's fight with the hams is just one skirmish in a protracted high-stakes battle for the airwaves. You can't see it, hear it, feel it, or smell it, but the airwave spectrum is an indispensable highway of the Information Age. And, like land, they're not making any more of it. The part of the electromagnetic spectrum that carries communications signals is packed with everything from garage-door openers, ultrasonic denture cleaners, television, and radio to ambulance dispatchers and radio telescopes waiting hopefully for messages from extraterrestrial beings.

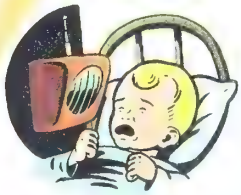
And every day, new users and technologies are clamoring to get their slice. Overnight, wireless networks such as cellular phones and pagers have become multibillion-dollar industries. Now, they're busting at the boundaries of their airwave allotments. The Geneva-based International Telecommunication Union, which sets guidelines for airwave use, reports that as many new frequency assignments were recorded in the past decade as in all the previous 80 years of radio communications.

Overcrowding threatens businesses that now generate more than $100 billion a year from the airwaves. And with the odds of finding a niche on the airwaves

A WIRELESS WORLD: AIRWAVE GRIDLOCK

SHORTWAVE
(3-30 megahertz) These beams, bouncing off the ionosphere, can travel halfway around the globe. That makes them ideal for long-distance communications. Amateur radio operators, religious and government broadcasters crowd into short-wave

AM RADIO
(535-1705 kilohertz) New AM radios will be able to tune in up to 1700 instead of 1600, thanks to a recent channel expansion granted this year by the FCC. The new spectrum was taken from government agencies. Still, all of AM takes up just a fifth of the space of one TV station



GADGETS
(46.6-47 meg hertz and 49. megahertz) T slivers of spe are a virtual T of Babel shared by cordless phones, baby tors, and garage-door openers. In case of i ference, all have to yield to the primary use which is the U.S. government. Baby monito are particularly troublesome because the wireless microphones are generally left on all day in babies' cribs

vindling, it's harder to launch novative businesses that de- nd on them. If other coun- es with less crowded air- aves permit new services st, their companies may be st to develop advanced radio ar—and their economies the st to benefit from better mmunications.

Jammed airwaves could even ean the difference between e and death. In southern ew Jersey last year, paramed- said they could not render sistance in a neighboring unty because they couldn't mmunicate with its dispatch- s. The channels were being onopolized by school bus driv- s across the river in Pennsyl- nia who were chatting about ying lobster tails, according a tape of their conversation sent to e FCC. The Federal Bureau of Investi- tion says that it has put off some vestigations and scrapped others be- use there were no radio channels ailable for wiring undercover agents. t's really hurting our ability to do our ,," complains James K. Kallstrom, ief of the FBI's special-operations anch in New York. "It's a gigantic in in the ass."

The good news? Despite all the crowd- g, big portions of the airwaves remain derused, as if large patches of Man- ttan were still cornfields. By adopting efficient new technology, eliminating waste, and finding a more sensible way of allocating spectrum, the nation could ease its airwave crisis.

"WE HAVE PROBABLY NOT SUFFICIENTLY FOCUSED ON THE SPECTRUM AS AN IMPORTANT NATIONAL ASSET IN THE PAST"

FCC CHAIRMAN
ALFRED C. SIKES

Sounds simple. But economic and political realities all but rule out a simple truce in the airwave wars. For decades, entrenched holders of airwave licenses have successfully resisted any form of redistribution. Television and radio broadcasters have grown enormously rich from their slivers of the electromagnetic spectrum. When a TV station is sold these days, the value of its FCC license can represent up to 60% of its value (chart)—more than all the cameras and anchormen combined. With legions of lobbyists and lawyers and the powerful National Association of Broadcasters, the station owners have made sure that federal regulators don't disturb the profitable status quo. And lately, consumers worried about possible health effects of radiation from transmitters have begun fighting expanded use of the airwaves, too (page 51).

But as the crowding of the airwaves goes from bad to intolerable, more and more economists, regulators, lawmakers, and spectrum have-nots are calling for change. "We have probably not focused sufficiently on the spectrum as an important national asset in the past, and we're going to have to change that," says FCC Chairman Alfred C. Sikes. Suddenly, spectrum reform is a hot topic at the FCC, the Commerce and State departments, in Congress, and at the United Nations-affiliated ITU. There has been "more motion in the last year than in the past 10," says John E. Major, vice-president and general manager of Motorola Inc.'s Communications Systems Group.

FOUND MONEY? The most extreme reformers advocate airwave deregulation. They believe that the process of allocating channels should be left to the free market. The government would sell off frequencies to high bidders to do with as they pleased. As a bonus, Uncle Sam could get a badly needed shot in the treasury. A more modest option would keep the spectrum in government hands but impose hefty annual airwave-usage charges instead of the paltry licensing fees that the FCC now charges.

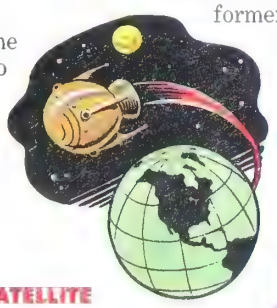
Not charging for the spectrum is "a national disgrace," says Henry Geller, a former administrator at the Commerce Dept.'s National Telecommunications & Information Administration (NTIA)

ELEVISION

HF in three bands between 54 d 216 megahertz and UHF at 0-806 megahertz) Television is wasteland of wasted spectrum, th five empty channels be- een every two live ones in the HF band. Others clamoring that prime real estate clude police and am- lance dispatchers d operators of fast-growing llular systems. But broadcast- s are determined to hold the ace for high-definition TV

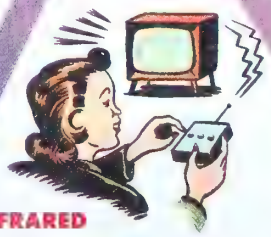
CELLULAR

(Two bands between 825 and 894 megahertz) Before 1976 an unused part of the UHF TV band, now it's overcrowded. New digital systems will boost capacity



SATELLITE

(Various frequencies, between 1,000 megahertz and 60,000 megahertz) Growing use: extending mobile communications where cellular won't reach



INFRARED

(10 trillion hertz) Above 60,000 megahertz, long-distance communications is still impractical. But infrared is useful for devices such as TV remote controls

PHOTOGRAPH BY KATHERINE LAMBERT

LUSTRATIONS BY ROSS MACDONALD

and now a communications fellow at the John & Mary Markle Foundation, a public interest group in New York. "It's as if you stood in front of the FCC and burned hundreds of millions of dollars."

Apparently, the White House agrees. President Reagan favored limited spectrum auctions, and President Bush's 1990 and 1991 budgets have called for raising more than $3 billion over two years by selling off a small proportion of the airwaves. So far, Congress has balked.

To be sure, airwave auctions on a large scale would provoke a political firestorm. The radio spectrum is widely regarded as a national resource, like the national parks. "Auctions mean selling off your birthright," says Andrew J. Schwartzman, executive director of the Media Access Project, a Washington public interest group. "You could probably get more revenue out of the Grand Canyon if we leased it out to Nike and let them put an Air Jordan logo on the side." If the airwaves were left to market forces, he says, freedom of speech would suffer because only material with sufficient commercial appeal would get on the air.

Deregulation might also hinder, rather than help, technological progress, say some critics. With auctions, they say, only huge corporations could afford to buy air space to launch new services. "If the FCC goes to auction, it would kill the little guys like me," says Jack Goeken, president and founder of In-Flight Phone Corp. in Oak Brook, Ill., which recently won the right to compete with the Airfone Inc. airline phone service of giant GTE Corp.

"WE'RE NOT SPECTRUM HOGS," PROTESTS A LIEUTENANT GENERAL AT THE PENTAGON

But some reform seems inevitable. Without rationalization of the current hodgepodge, the competitiveness of the U. S. economy could be at risk. "We're at a critical time," says Thomas P. Stanley, chief engineer of the FCC. "Other countries are moving ahead. When should you start planning? The answer is: immediately. And I think Congress has picked up on that."

Indeed, a sort of airwave peace dividend has been proposed by two prominent Democratic congressmen, Representative John D. Dingell of Michigan, chairman of the Energy & Commerce Committee, and Representative Edward J. Markey of Massachusetts, chairman of the House telecommunications and finance subcommittee. Their Emerging Telecommunications Technology Act would grab 200 megahertz of spectrum now reserved for the military and other agencies and let the FCC reallocate it for civilian uses. To win Republican support, they've deleted a provision that would have banned auctioning the frequencies.

A MOBILE SURGE. Relief of airwave congestion can't come too soon for American business. In addition to UPS, dozens of companies, including IBM Corp., are outfitting their staffs with radio-communications terminals that instantly relay data on orders and inventories back to headquarters. Executives and managers are using phones, fax machines, and computers in cars, planes, and trains—relying on the airwaves to keep in touch while they're on the go. In three years, the number of cellular phone subscribers in the U. S. quintupled, to 3.5 million by the end of 1989, overwhelming systems in cities such as Los Angeles. More services are coming. Last month, Motorola announced plans for Iridium, a satellite network that would let people call or receive calls anywhere on earth.

Faced with this mobile surge, entrenched occupants of the airwaves are straining to hold on to what they have. The military is accused of hoarding spectrum. So are long-distance phone companies, which are hanging on to bands for microwave transmission even after shifting traffic to new fiber-optic lines. And mobile communicators claim that TV broadcasters no longer need to retain

SOME POSSIBLE SOLUTIONS TO THE AIRWAVE CRISIS

- Auction portions of the spectrum. Allow buyers to use channels as they see fit
- Auction portions of the spectrum but [illegible]
- [illegible] for government purposes or reallocated to other civilian uses
- Charge fees for use of the spectrum to [illegible]
- [illegible] ings, as is done now, but do it faster
- [illegible] blocks of spectrum for future [illegible]
- [illegible] a "pioneer's preference" for [illegible]

THE WORLD WITHOUT WIRES IS A TANGLED WEB

As vice-president of external affairs for McCaw Cellular Communications Inc., Robert A. atliffe makes his living extolling ireless communications. But even atliffe was rattled recently when one ıch device tripped him up. Shortly afr putting his newborn daughter to d, he heard a child wailing like a lice siren over the wireless intercom at he uses to monitor the nursery. atliffe dashed upstairs—to find his ıughter safely asleep. Turns out what had heard were sounds of a neighr's toddler whose monitor was tuned the same channel as Ratliffe's.

Vexing but harmless, right? Well, ace yourself for a t more of these anyances—some not early so benign. The ederal Communicaons Commission alady fields thouınds of complaints very month about inrference and other oblems with CB radi-, cordless and celluı phones, baby monors, and pagers. ore ominous, growg numbers of reearchers, medical rofessionals, and overnment officials e raising red flags out possible health azards posed by elecomagnetic radiation om some wireless ansmissions.

For many, the benets far outweigh any inconvenience. o longer does the length of your ione cord dictate where you have our weekly gossip with Aunt Sue om Wichita: If you want, you can at while weeding the garden or drivg to the ballpark. And gizmos to iminate a tangle of unsightly wires e catching on. Two companies recent- won approval from the FCC to sell evices that use radio waves to beam e signal from a VCR playing a tape in e room to a TV set in another room. Vireless wonders may even help save ves. In the first nine months of 1988, e California Highway Patrol logged 00,000 calls to its 911 emergency numer from drivers using cellular phones.

But there are hassles aplenty, too. ordless phones, car alarms, baby onitors, and other consumer devices all share portions of the spectrum that technically still belong to the federal government. So, in addition to running into one another, these spectrum users can run into the government, which still has top priority. Residents of San Diego learned that last April when secret government test signals fouled up car alarms throughout the area.

BAD BILLING. The problems are multiplying. It's not unusual for cordless phones to get a false busy signal when neighbors are using a baby monitor because they operate on some of the same channels. The situation has gotten so bad that some phone makers no longer design products for the five channels shared with monitors. In effect, that halves the number of frequencies for cordless phones, laments William J. Cole, vice-president of engineering for Dynascan Corp., maker of Cobra phones. Even more nettlesome for cordless-phone owners is incorrect billing. Neighbors who use cordless phones on the same frequency can accidentally tap into each other's base stations. Then the phone company bills the calls to the wrong home.

Privacy is becoming a big issue, too. Scanning receivers and TV sets that pull in up to 83 channels routinely pick up cellular-phone conversations. And a recent federal court ruling makes it legal for the police to tap into cordless calls without a court order—which isn't true of calls over phone lines.

But it's health concerns that have turned consumers into protesters. After the National Weather Service proposed last winter to plunk down a radar station in the middle of her neighborhood in West Sayville, Long Island, Barbara Pettick started raising hell. The mother of a 2-year-old girl, she had read that low-level radiation—such as the amounts an electric-utility lineman or ham-radio operator absorbs—is not as harmless as scientists once thought. Some studies have shown that workers exposed to such radiation have had higher-than-normal rates of cancer. Pettick learned that the electromagnetic fields radiating from the proposed radar tower near her home might be even stronger than those in the medical studies. So she helped to organize Mothers Against Radiating Kids, which grew to 450 members. With Pettick's and other groups running petition drives, holding meetings, and lobbying politicians, the Weather Service recently beat a retreat from West Sayville.

Similar protests have occurred across the country, including in Hawley, Mass., Vernon Township, N.J., Portland, Ore., Washington, D.C., Michigan's Upper Peninsula, and Seattle. Targets have ranged from radar and broadcast towers to satellite and terrestrial microwave installations. Research on the possible harm from transmitters remains sketchy. Most studies about health risks from electromagnetic radiation have focused on power lines and video display terminals, which involve lower frequencies. A draft of a forthcoming Environmental Protection Agency report completed last month draws a possible link between cancer and low-level fields from those sources.

For now, the wireless revolution is unlikely to slow. But if further studies make a conclusive connection between ill health and airwave signals, even the most fanatic convenience hounds might find themselves joining Pettick in a chorus of, "Not in my backyard."

By Lois Therrien in Chicago

control over unused swaths of spectrum, since about 60% of households now tune in via cable.

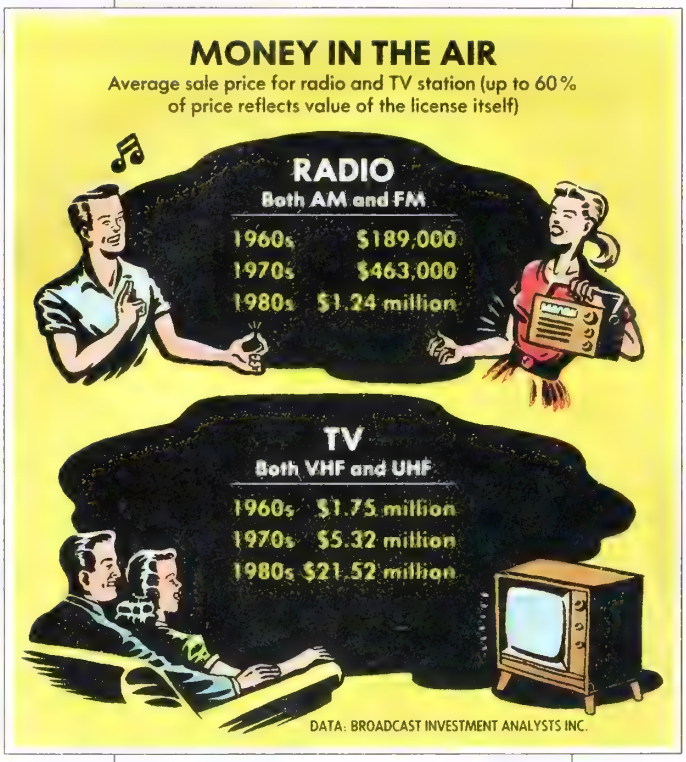
It's a classic battle of haves vs. have-nots. Just a few years after elbowing their way onto the airwaves, cellular-phone companies are doing their best to thwart the latest newcomers, developers of personal-communications networks. PCNs are low-power, inexpensive cellular systems that could replace regular phones in offices and could also take business from existing cellular networks. Owners of cellular systems are fighting to seize control of the new technology by promising PCN service over their channels. "I don't think we ought to run headlong into trying to find new spectrum and tossing it automatically to mobile communications," says Earle Mauldin, group president for BellSouth Enterprises Inc.

OLD GUARD. If airwave real estate were like the conventional kind, all this would be manageable. Somebody who wanted the space could simply buy it from somebody who had it—at the right price, of course. Soon, free-market forces would be efficiently redistributing spectrum to reflect changes in demand and technology. But current licensees, divorced from the discipline of the free market, have little incentive to make the most efficient use of their allocated space.

The airwaves remain anything but a free market. The FCC does not allow a slot to be changed from one use to another without extensive hearings. And when a licensee wants to try a new technology—perhaps one that would relieve airwave crowding—the government demands elaborate hearings that can take years. In effect, the five FCC commissioners and the agency staff determine an electromagnetic industrial policy. The FCC allocates space "in response to the private pleadings and the political pressures and the engineering knowledge of the time," says Robert Crandall, a Brookings Institution economist and former FCC staffer.

The process has been a mystery—and an invitation to political maneuvering—almost from the time Guglielmo Marconi invented his "wireless." The first commercial radio stations simply homesteaded. They occupied a channel, built an audience, and gained quasi-legal rights to the slot. In a clunky way, it worked. In 1927, however, the government seized control of what had been a private market, and in 1934, it set up the FCC. While commissioners theoretically disregard politics, they depend on Congress and the White House for both their budgets and their own appointments.

Politicians caught on quickly. In 1952, an ambitious senator from Texas named Lyndon B. Johnson easily persuaded CBS Inc. to make his tiny Austin TV station the local affiliate. Nobody had to remind the network that Johnson's mentor, House Speaker Sam Rayburn, had enormous clout at the FCC. In the 1970s, when *The Washington Post* was digging up the Watergate scandal, allies of President Richard Nixon unsuccessfully tried to get the broadcast licenses of the Washington Post Co. by filing competing applications for them.



Broadcasters also learned how to work the system. RCA Corp. founder David Sarnoff used the FCC to derail the original FM radio system, which he viewed as a threat to the infant television industry. Inventor Edwin H. Armstrong offered FM to RCA in 1933, but Sarnoff demurred because FM worked best at the same frequencies where Sarnoff was trying to establish TV. Later, Sarnoff helped persuade the FCC to move FM to its current higher band, rendering early FM sets useless.

TV broadcasters mostly have done well with the FCC ever since. For example, they persuaded the commission to keep more than half the channels on the VHF and UHF dials empty, an arrangement that limited competition for advertising dollars. Originally, the channels were left vacant to avoid interference between neighboring stations. But long ago, the FCC could have avoided interference—and opened up more channels—by requiring simple improvements in TV sets. It didn't. Recently, broadcasters pulled an about-face. Now they want the empty channels to be used—but only by themselves for high-definition television, which requires extra bandwidth for signals that offer film-quality sharpness and audiophile sound.

The battle over HDTV promises to be the bloodiest engagement in the airwave wars, pitting powerful broadcasters against an array of opponents, including cellular-phone companies, fleet dispatchers, and police and fire departments. Broadcasters are determined to deliver HDTV over the air and are asking the FCC for an additional channel for every HDTV station. Their argument—that the public is entitled to continue enjoying free access to TV—has obvious political appeal. An FCC ruling, scheduled for 1993, is expected to go along with the industry request, even though engineers say it's not yet clear when it will be possible to deliver full HDTV without cable or satellite dishes.

Economists have railed against the government's spectrum-allocation policies for decades. But now, the system's inability to move new technologies to market quickly is prompting more widespread calls for reform. Take cellular phones. First conceived by AT&T Bell Labs in the 1940s, cellular could have been introduced in the early 1970s. But into the 1980s, phone companies wrangled with the FCC over how the ultralucrative cellular franchises would be allocated.

What makes the spectrum squeeze doubly frustrating is that science, left to its own devices, could do a lot to alleviate the problem. In fact, it already has: Cellular technology opened mobile phones to a mass market by creating a honeycomb of local calling "cells" so that the same few frequencies could be reused to carry different calls simultaneously. Now, the business is ready to switch to digital signals, which will eventually boost the capacity of cellular systems tenfold or more. That means fewer busy circuits and possibly lower rates.

Innovations in electronics, such as powerful signal-processing chips, now make it possible to use untapped higher

uencies. There's also spread-spec-
n technology, a military spin-off that
es signals and splays them over a
e band at low power. A decoder at
receiving end plucks the signal out
the background noise. New York
tup Millicom Inc. will test spread-
ctrum PCNs in Houston and Orlando.
the technologies are rushing toward
ing more mileage out of the frequen-
that exist," says Shelby Bryan, Mil-
n's chief executive.

ME BUSTERS. Indeed, with enough
enuity, technical gurus say, the air-
es have virtually unlimited capacity
every ambulance radio, cordless
ne, baby monitor, and pager the pub-
might want. But uncertainty about
ce on the spectrum "thwarts invest-
t in and development of new
nology," says C. Michael Da-
chief executive and president
Lo-Jack Corp., a company in
dham, Mass., that sells an
theft device that emits a ra-
signal to let police track sto-
cars. Lack of spectrum de-
ed Lo-Jack's business by
ut five years, he says.

ear that the U. S. will be de-
ed of new technologies is cre-
g a consensus in Washington
do something about airwave
llock. When he was named
chairman last year, Sikes
ed that improvement in spec-
n management would be one
his top priorities. And the
A has undertaken one of the
gest studies ever on how to
orm the use of the airwaves.
e out by year's end, the study
xpected to recommend a raft
reforms to speed spectrum
cation.

he Dingell-Markey plan
mises the quickest relief. The
MHz targeted by the bill would pro-
e the capacity for thousands more cel-
r-phone channels or 30 channels of
—among many possibilities. The FCC's
es supports the bill, arguing that the
itary and other federal agencies have
used spectrum efficiently. The Pen-
on objects. "We're not spectrum
gs," declares Lieutenant General
nes S. Cassity Jr. of the Joint Chiefs
Staff. Indeed, the Pentagon has said
measure "would adversely affect
S. national security." As an incentive
cooperation, the military and other
eral spectrum users should get to
p part of the money raised from auc-
ning space they surrender, says Ja-
e Obuchowski, who oversees federal
ctrum usage as head of NTIA.

Since airwaves don't recognize bor-
s, there is a need for international
wave reform as well. The World Ad-
nistrative Radio Conference, which meets next in Spain in 1992, will try to clear world air space for PCN-type devices, satellite-delivered HDTV, and other emerging wireless technologies. Sikes says one priority will be to establish channels for low-flying communications satellites, the type that Motorola plans for its Iridium service. The U. S. government also backs the idea of a satellite network that could broadcast radio programs around the world. Voice of America, for example, could be beamed in hi-fi—with no possibility of jamming.

In the U. S., the most radical reform—spectrum auctioning—is slowly gaining support. Free-marketers say this is the best way to give the public what it really wants, because the bidder who pays the most will have more incentive to figure out the best and most efficient use of the airwaves than engineers, bureaucrats, and lawyers buried in some warren at the FCC. If a spectrum licensee were wrong, it could sell its license or change its service.

"ALL THE TECHNOLOGIES ARE RUSHING TOWARD GETTING MORE MILEAGE OUT OF THE FREQUENCIES THAT EXIST"
MILLICOM CEO SHELBY BRYAN

Auctions need not be as disruptive to the status quo as some critics fear, says Dale Hatfield, a consultant based in Boulder, Colo., and former acting head of the NTIA. Selling the airwaves wouldn't mean surrendering control over them, he says. Frequencies for ambulances, ham radio, educational TV or any other favored use could be exempted from auction. Affirmative action for minority and women licensees could be preserved through some form of subsidy. Another concern—that huge corporations would monopolize the airwaves—may also be overblown, according to Hatfield. Even the richest company could not justify buying excess spectrum and then not using it efficiently. Small rivals that could deliver competing services in less bandwidth would soon undercut the big company's prices.

Although Congress has repeatedly rejected airwave auctions, the White House still advocates selling off spectrum—but only for specified uses. The FCC's Sikes has a similar view. He favors auctions for "virgin" spectrum that becomes available from the government, and he would impose restrictions on how those bands are used. A former Missouri radio station owner, Sikes is strongly against auctions for broadcast properties. He supports the traditional FCC philosophy that a broadcast license is a sacred public trust and should be awarded only after hearings are held to compare the applicants' moral standing and commitment to their communities. Sikes also is sympathetic to worries by broadcasters and other communications companies that radical deregulation would be akin to expropriation—even though broadcasters don't truly own the airwaves they use.

PCN ON TV TURF. Even without massive regulatory changes, the FCC has made some important moves to ensure that spectrum is used more wisely. Sikes, for example, has been praised by reformers for insisting that future frequency allotments go to highly efficient new technologies. And the FCC has proposed a "pioneer's preference" that would give innovators an edge when new frequencies are doled out.

Still, the U. S. has to move ahead on spectrum or risk falling behind. Nations that haven't used their airwaves as extensively as the U. S. has can adopt new technology faster because they have more bandwidth available. Britain has taken the lead in new mobile communications such as PCN by making room on turf once reserved for TV. Canada charges a service fee for spectrum use, and Japan is seeking to clear more room in its crowded spectrum for digital wireless phones this year. New Zealand has gone the furthest. It plans to auction off the entire spectrum above 1,000 MHz, which in that small island nation is mostly unused.

Few people advocate a blanket auction of the entire spectrum, and even fewer think such a thing could ever happen in the U. S. Gradual steps, such as opening portions of the government's spectrum to free-market forces, are likely. In any case, the need for some relief is clear. Otherwise, American business won't have the air it needs to grow.

By Mark Lewyn in Washington and Peter Coy in New York

HOW MUCH SHOULD YOU TRUST YOUR ANALYST?

They're part academician, soothsayer, and salesman—and that invites conflicts of interest

Wall Street analyst Thomas K. Brown watched First Union Corp. acquire bank after bank for years, without much in the way of profits to show for it. So earlier this year, he wrote a critical report on the Charlotte-based bank holding company, pointing out, among other things, that Chairman Edward E. Crutchfield Jr.'s salary had more than doubled in the past five years while the stock underperformed the market by 50%.

Infuriated, Crutchfield flew to New York to confront Brown. And after the analyst refused to back down, First Union's trust department cut Brown's employer, PaineWebber Inc., off the list of brokerage firms with which it traded. Brown says PaineWebber tried to get him to tone down his criticism in order to woo back First Union's business, but he won't budge. "We cannot have companies we cover dictating what is included in our research reports or how we write them," says Brown, 31, a 10-year veteran of the Street. First Union officials would only say they believe the acquisition strategy will pay off. James M. Voytko, PaineWebber's research director, declined to talk about specifics but affirmed that his shop has the "willingness to take tough stands."

BACK IN VOGUE. Brown can be bold: He's one of 65 brokerage-firm analysts who made it to *Institutional Investor* magazine's All-America Research Team, an honor awarded by an annual poll of institutional investors that confers status and employability on the Street. But beyond the top ranks, analysts may not be so free to speak their minds. With the securities business still in a slump, analysts say they are under increasing pressure to come up with buy recommendations that generate commissions. Brokerage executives also don't want their analysts to antagonize companies who might become clients. Some companies, too, are retaliating against analysts who say unflattering things about them. They cut them off from access to executives—or even the mailing list.

Look at Marvin B. Roffman, who formerly followed the casino industry for the Philadelphia brokerage firm of Janney Montgomery Scott Inc. Roffman lost his job on Mar. 23, just days after he said publicly that Donald Trump's new Atlantic City casino, the Taj Mahal, would find rough sledding once the summer season passed. Roffman filed lawsuits for damages on July 10 against his former employer and against Trump (page 56).

Ironically, hard-hitting stock analysis could prove more valuable to investors than it has been in years. During the 1980s, stock selection often seemed pointless. The Standard & Poor's 500-

k index beat about three-quarters of money managers hands down, and sting in an index fund—which re-ed no analysts' help—was one of the strategies around. And the era of germania didn't play to the analyst's ngth, either. Few investors cared t the best companies in any indus- Often, it was the underachievers got taken over. In the last year, as akeover wave ebbed, the stock mar- is focusing again on earnings and yth companies.

ED SIGNALS. But in sorting out at from chaff, the analyst needs free in telling investors when to sell. The l "sell," say some, is just bad for ness. Last year, Dean Witter Reyn- Inc. overhauled its equity research t to try to appeal to the firm's 7,500 ers who serve individual investors. now use "swap" instead of "sell." a better four-letter word," admits ard Puckhaber, an executive vice-ident. "Swap suggests you do some- g else with the proceeds of the sale."

r common Wall et sell euphe- ns are "hold," ly valued" and rce of funds."

nalysts who't say "buy" have to say ." Frank W. An- on, now at Ste- s Inc., says he to leave Dallas- d Eppler, Guerin Turner Inc. two s ago when he he couldn't find as banks or ts worth recom- ding. "You don't e a lot of friends ing sell recom- dations," he .

raditionally, secu- analysis has at- ted some of the minds on the et. It demands d stock-picking ty grounded in -solid analysis a flair for sales- ship. "You're part salesman, part fortune-tell- and one-part aca- ician," says John Keefe, a financial- ices analyst for clays de Zoete dd. And top ana- s pack a wallop. en David J. Lon- er of Wertheim Schroeder & Co. re-recommended Walt Disney Co. in late May, the stock shot up $9, or 7.5%, in two days.

Surprisingly, despite the retrenchment on Wall Street, most analysts are holding their own. Except for the demise of Drexel Burnham Lambert Inc. in February, there haven't been big layoffs as there have been of investment bankers and traders. And most of Drexel's 50-plus analysts have landed good jobs. Top analysts can still command $300,000 to $500,000 or more a year.

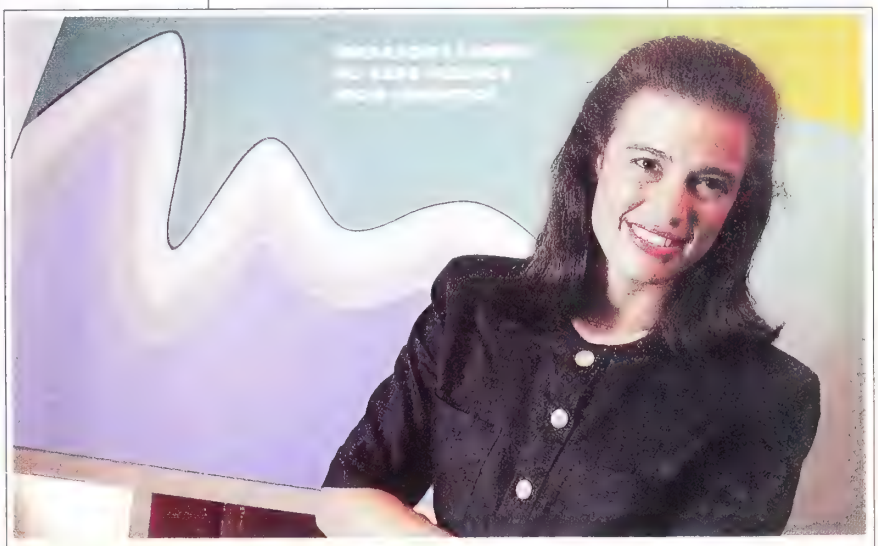
Many firms that have trimmed staff have also been hiring established stars or newcomers in such rapidly growing industries as biotechnology and pollution control. Some regional firms, such as Minneapolis-based Piper, Jaffray & Hopwood Inc., have been building staff slowly to boost coverage of emerging growth companies. Dean Witter, for instance, has added nine analysts over the past year—a 24% increase—and plans to add four more.

Indeed, there are more analysts—about 1,100—employed by the top 20 firms than there were in 1987, according to Walter Nelson, whose company tracks investment research. Part of the gain, too, has come from expansion overseas. Goldman, Sachs & Co. has 40 analysts in London and often pairs American industry experts with local analysts in Europe to produce reports. Other U. S. firms are taking the same tack. And despite the woes in the Tokyo stock market, U. S. firms are still hiring. Japanese investors are starting to look at companies the way Americans do—for their earnings potential.

But many of today's analysts are expected to do more than forecast earnings. They might be working with one of the companies they normally cover to launch an underwriting or pitch in on an acquisition or divestiture. Some even try to enlist companies they cover as investment-banking clients for the brokerage firm. Experienced analysts usually know CEOs and top financial executives in their industries, and investment bankers expect the analysts to open doors. In recent years, a few well-regarded analysts, such as Hercules A. Segalas of PaineWebber and Barbara T. Alexander of Salomon Brothers Inc., gave up securities analysis for full-time investment banking.

SEALED LIPS. But for those who wear both hats, there are potential conflicts of interest. Analysts working on deals can't comment on the companies involved but may get inquiries from investors nonetheless. "So maybe you don't return the call, or you're very noncommital and circumspect in your answers," says Nicholas P. Heymann, an electrical-equipment analyst at County NatWest Securities.

With the potential for conflicts of interest, institutional investors are increasingly wary of Wall Street's analysis. "If an analyst is doing corporate finance work, he's going to be constrained in ex-



THE TOP PICKS OF SOME TOP ANALYSTS

Analyst	Industry	Stock	Remarks
THOMAS BROWN PAINEWEBBER	Regional banks	Barnett Banks	"Relative P/E at all-time low, sound management, good cost control"
ROBERT CHRISTENSEN JR. MABON NUGENT	Natural gas	Coastal Corp.	"Cheap compared to profits & cash flow . . . a well-positioned pipeline"
EMANUEL GOLDMAN PAINEWEBBER	Beverage	Pepsico	"Productivity rising . . . .earnings should grow by 20% a year"
TEENA LERNER SHEARSON LEHMAN	Biotechnology	Amgen Genetics Institute	"Both are involved in the biggest and best biotech products of the decade"
FREDERICK LEUFFER C. J. LAWRENCE	Oil	Pennzoil	"Looks very cheap . . .Pennzoil has tremendous upside potential"
ROBERT MCADOO OPPENHEIMER	Airlines	AMR Corp.	"Below book value, . . .usually a smart time to buy AMR"
CAROL MURATORE MORGAN STANLEY	Computers	MIPS Computer Systems • Tandem	"Over long-term they should show strong market penetration"
RICHARD VIETOR MERRILL LYNCH	Drugs	Syntex	Promising products include a stroke drug, an analgesic, and anti-infective
WILLIAM YOUNG DONALDSON LUFKIN & JENRETTE	Chemicals	Monsanto	"Lots of proprietary products, great cash flow . . . undervalued"

DATA: BW

DID DONALD TRUMP SHOOT THE MESSENGER?

It's the analyst's job to sort out the money-making investments from the losers, or so Marvin Roffman always thought in his 16 years at Philadelphia-based Janney Montgomery Scott Inc. "I'm good at it," he says. "You can't last that long in this business if you're not good." And even though he didn't have the soapbox of a big New York brokerage house, he was one of the most often quoted casino analysts in the country.

In mid-March, Roffman, 50, was quoted in *The Wall Street Journal* and it ultimately cost him his job. He said Donald Trump's Taj Mahal, which had not yet opened, would have a tough time financially once the hoopla over the opening subsided and the summer tourist season had passed. That meant the $675 million in junk bonds Trump floated to complete Atlantic City's most ambitious casino-hotel would be a bad deal for investors.

ANALYST ROFFMAN IS SUING

DEFAMATION. Outraged, Trump told Roffman's bosses he'd sue them unless the analyst made a public apology or was dismissed. Roffman first signed a letter penned by his superiors. The next day, though, he retracted the apology. That's when he was fired.

Roffman is now seeking legal redress against both his former employer and Trump. On July 10, his attorneys filed an arbitration claim for wrongful discharge against Janney Montgomery. The claim is to be heard by an arbitration unit of the New York Stock Exchange. Martin J. Sobol, Roffman's attorney, said Roffman's employment agreement specified such disputes be heard by the NYSE, the common practice in the industry.

From the brokerage, Roffman seeks $1 million in compensatory damages, unspecified punitive damages, and reinstatement. The lawsuit against Trump, filed in U. S. District Court in Philadelphia, seeks like damages and charges Trump with defamation and interference with Roffman's employment.

Gregory M. Harvey, an attorney for the brokerage firm, says Roffman's opinions were not an issue. Instead, says Harvey, the analyst was let go because he repudiated his own apology, after he had been advised not to do so by his superior. John J. Barry, an attorney for Trump, says Roffman's suit is "nonsense." He adds: "Mr. Trump doesn't believe he was responsible for the firing. Mr. Roffman violated company policy."

Roffman's discharge chilled analysts around the country, who increasingly worry about their independence to call the shots. "If an analyst is thorough and comprehensive in arriving at his opinions, he shouldn't be subject to that kind of pressure," says Alfred C. Morley, president of the Financial Analysts Federation.

DUMBFOUNDED. The tiff also caught the attention of Representative John D. Dingell (D-Mich.), the influential chairman of the House Energy & Commerce Committee, which oversees the securities business. Roffman's firing, said Dingell, "raises serious questions about the honesty and integrity of Wall Street research as well as conflict-of-interest problems between firms and analysts and their clients. If self-regulation cannot effectively deal with these matters, we need to be looking at legislative remedies."

Roffman said he was dumbfounded by Trump's response to his remarks, if only because his opinions weren't new. "I testified at the Casino Control Commission in 1987 that I had serious doubts about the success of the Taj, owing to its high costs," says Roffman, "and in June, 1989, I warned people to stay away from the Taj Mahal bonds." The bonds, which traded above par at the time, had fallen to 83 by mid-March. Today, the bonds sell at a little more than half their face value. Investors who followed Roffman's advice avoided losses. A lot of good that does Roffman. He's still out of a job.

By Jeffrey M. Laderman in New York, with Dean Foust in Washington

pressing negative views," says H. Bradlee Perry, chairman of David L. Babson & Co., a money-management firm.

Take Silk Greenhouse Inc., a specialty retailer brought public by Raymond James & Associates Inc. in 1988. The stock climbed to 24 from 7 its first year out, but started sliding late last year when earnings growth faltered. Harry G. Katica, a Raymond James analyst who wrote reports on the client company, says he recognized problems, too, but didn't change his buy rating to "hold" until Mar. 26, when the stock was around 7. Then, says Katica, management refused his phone calls and barred him from headquarters—which he had frequently visited before. The company maintains that it did not return calls because its executives were swamped with work. In mid-April, he said sell. The stock now trades at 2. "In retrospect," says Katica, "I wasn't as aggressive as I should have been."

'FLAVORING.' Brokerage firms do have "Chinese Wall" procedures to separate the analytical and the investment banking roles. All-star Teena L. Lerner, a biotech analyst at Shearson Lehman Hutton Inc., wrote reports in 1988 and 1989 critical of Genentech Inc. and told investors to sell the stock. If the company had complaints, she said, she didn't know about it. In fact, when Genentech negotiated a merger with Hoffmann-La Roche Inc., she only learned when the deal was announced that Shearson investment bankers were representing Genentech in the deal. "I was glad to see my research report didn't get in the way of the right business decision," says Lerner, who holds an MBA as well as a PhD in molecular biology.

Even if the need is for more stock analysis, the economics aren't yet in place. The giant institutions—the primary customers for research reports—continue to pay on the average of 6¢ to 8¢ a share in brokerage commissions. Equity research departments are money-losers, and their main value is in what other prestige or business they can attract to the firm.

In the last golden era of equity analysts, commissions were fixed and very rich. "At 28¢, you get total objectivity," says Daniel Meade, director of global equity research for CS First Boston Corp. "At 6¢, you get a little flavoring from the corporate finance side. If customers want analysts who don't work with corporate finance, they're going to have to compensate them for that." And that's something no good analyst would put in his forecast.

By Jeffrey M. Laderman in New York, with Chuck Hawkins in Atlanta, Irene Recio in Miami, and bureau reports

PERELMAN WILL MARKET MARVEL'S COMIC CHARACTERS TO TV AND THE MOVIES

PERELMAN IS NO SUPERHERO TO INVESTORS AT ANDREWS

inority shareholders are charging the Revlon mogul with fraud

When Ronald O. Perelman was a corporate raider, he often complained that executives ren't doing enough for stockholders. w he's an executive himself, and ess what? A group of his shareholds is up in arms. Specifically, investors his struggling Andrews Group Inc. he is forcing them to give up their ck at an unfairly low price.

The brouhaha is complicating Perelin's life in more ways than one. Lawts could yet derail his plans for rejuating Andrews, an entertainment npany whose chief claims to fame are perhero Spider-Man and TV sitcom *The onder Years*. The tiff could also make harder for Perelman to round up the estors he needs to se money for Revlon ., the debt-laden cenpiece of his multiion-dollar empire.

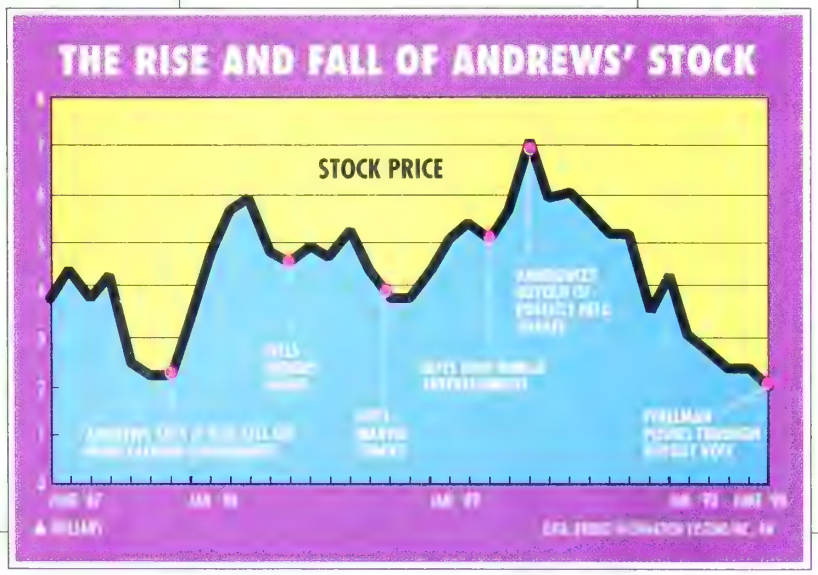
Since Perelman owns % of the stock at Anews, he can do pretty ch what he wants th the company, a nt that has long been source of acrimony. relman took control, $12.5 million, of at was then a videoduction services npany in 1983. He en outraged minority areholders by unload his less desirable units, such as Brooks Drug Inc., onto its books at large prices. Andrews bought Brooks, a money-losing drugstore chain, from Revlon in 1986 for $95 million and sold it two years later to SupeRx Inc. for $80 million. Howard Gittis, vice-chairman of Perelman's holding company, MacAndrews & Forbes Holdings Inc., denies that Andrews was a dumping ground and says critics ignore that Perelman put $75 million into Andrews to make it viable.

INCREDIBLE HULK. That dispute faded when Perelman switched strategies in 1987. The stock rose when he divested Andrews of its unprofitable subsidiaries and bought comic-book publisher Marvel Entertainment Group and television producer New World Entertainment Inc.

Although Andrews lost $14.8 million last year and showed a negative net worth of $10 million, there are signs of hope. On the heels of Batman and Dick Tracy, Perelman is marketing Marvel's Spider-Man, Captain America, and the Incredible Hulk aggressively to TV and the movies. And New World's hit series *The Wonder Years* could pay off big when it goes into syndication in 1992. But the good feelings ended when the stock buyback was announced. Recalcitrant investors were easily outgunned by Perelman, and he won approval of his $28 million plan at a June 4 meeting.

At its root, the latest controversy over Andrews involves money. Perelman is exchanging each publicly held share for a junk bond paying 10% and maturing in 1997. The face value of the bonds is equivalent to the $7.25 a share that Andrews was trading at on the day he announced the offer. But with Andrews struggling financially, the market was quick to place its own value on Perelman's offer: The stock last traded at about $2 a share (chart).

The deal is being contested by a couple of shareholder suits accusing Perelman of fraud, a charge he denies. Says Bijan Amini, the lawyer for one investor group: "All we want is more money. Cash would be better than these junk bonds, that's for sure." Amini, representing shareholders who bought stock through Gruntal & Co. in New York, is pursuing a suit before Chancery Court in Delaware, where Andrews is incorporated. Customers of the Philadelphia brokerage of Boenning &



(TOP, LEFT) PHOTOGRAPH BY BAUER/RON GALELLA; CHART BY ERIC HOFFMANN, BW

Scattergood Inc. have a similar action before Federal District Court there.

Perelman is making headway in court. On July 11, he settled a third lawsuit filed in Delaware by Richard D. Greenfield, a Haverford (Pa.) lawyer noted for mounting shareholder suits. Greenfield says he now feels investors are getting a fair shake. But Tom P. Monteverde, who represents plaintiffs in the Philadelphia suit and who tried to block the settlement, has his own view of Greenfield's motivation. Greenfield & Chimicles will receive $475,000 in legal fees from Perelman, while clients get nothing beyond the Andrews bonds. Says Monteverde: "He's selling out." Greenfield denies he was bought off, adding that his firm did extensive work on the suit. "My reputation is worth more than any goddamn fee," he says.

Perelman wasn't available for an interview, but his aides say he is doing Andrews shareholders a favor by taking a lackluster investment off their hands at a fair price. Making Andrews profitable again will take four to five years, a lot more time than impatient minority investors think, says Gittis. He adds that Perelman needs to pump more money into Andrews, and he doesn't want to do this unless he has complete control.

'CONSTANT DRAIN.' The case has implications beyond Andrews. Revlon is under pressure to begin paying off $1.8 billion in bank debt, so Perelman is selling a 15% stake in its National Health Laboratories Inc. subsidiary through a public stock offering. Here's the possible hitch: Perelman will retain an 80% interest in National Health. Although an even less commanding majority has enabled him so far to rebuff the efforts of minority shareholders at Andrews, Perelman's lieutenants say there's little chance of a replay. "Andrews was a constant drain, and we needed to be compensated for carrying it," says Revlon special counsel James T. Conroy. Indeed, National Health, a leading medical-testing company, is far more robust. Its earnings per share almost tripled between 1986 and 1989, to 65¢.

Is that enough protection for potential investors? One danger is that with Revlon still hungry for cash, Perelman may want to tap National Health again. An ominous element of the current offering is that the new money raised is not going to be plowed back into National Health. It's for Revlon's use. And what if there's trouble later at National Health? Dirk Van Doren, a McCarthy Crisanti & Maffei Inc. analyst, says investors should be wary: "You could be used." Just ask the unhappy investors at Andrews.

By Larry Light in New York

MUNICIPAL FINANCE

'OUR ONLY PROBLEM IS WE OWE DREXEL MONEY'

Will Drexel's bankruptcy rain on WR Lazard's parade?

About three years ago, Wardell R. Lazard was riding high. His WR Lazard & Co., one of a handful of black-owned investment firms, was a thriving company, thanks to his Wall Street experience and efforts by municipalities to include minority underwriters in their financing plans. By the end of the decade, his firm managed $1.8 billion in pension-fund assets and ranked 15th among all municipal-bond underwriters.

Then came Drexel. With the bankruptcy of Drexel Burnham Lambert Group, the firm's appeal to municipalities suffered. New York City grew leery of increasing its municipal underwriting business with Lazard. "Our only problem is we owe Drexel money," laments Lazard. By rights, the trustee for Drexel's bankruptcy could force Lazard's municipal-bond underwriting subsidiary, WR Lazard Laidlaw & Mead, to pay up immediately on some of the $2.5 million loan the firm got from Drexel. That has made municipalities more cautious in dealing with Lazard for fear the firm could suffer a capital crisis.

LAZARD: SEEKING A FINANCIAL ANGEL

Lazard's best hope is to find a new financial angel. Efforts to get a cash infusion from financier Lewis Ranieri fell through. Now, Lazard says he is close to reaching an agreement with a new lender, whom he declined to name, as well as renegotiating the Drexel loan. If Drexel and the bankruptcy court eliminate the provision allowing the court to require payment on demand, the firm could pay back the loan gradually.

Lazard doesn't give up easily. The son of an Air Force sergeant, he earned a law degree from the University of the Pacific law school at night, working days at the California Benefit Payments Dept. In 1976, he got a job as an investment officer trainee for California's big state employee retirement fund. His specialty: managing bond portfolios.

'THE RIGHT THING.' He moved to Salomon Brothers Inc. in New York in 1980, and five years later had enough experience and connections to strike out on his own. Lazard, then a vice-president, asked Salomon for seed money and walked away with a $250,000 loan. "In some sense we were creating a competitor, but we felt it was the right thing to do," says Gedale B. Horowitz, the Salomon senior executive director who championed Lazard.

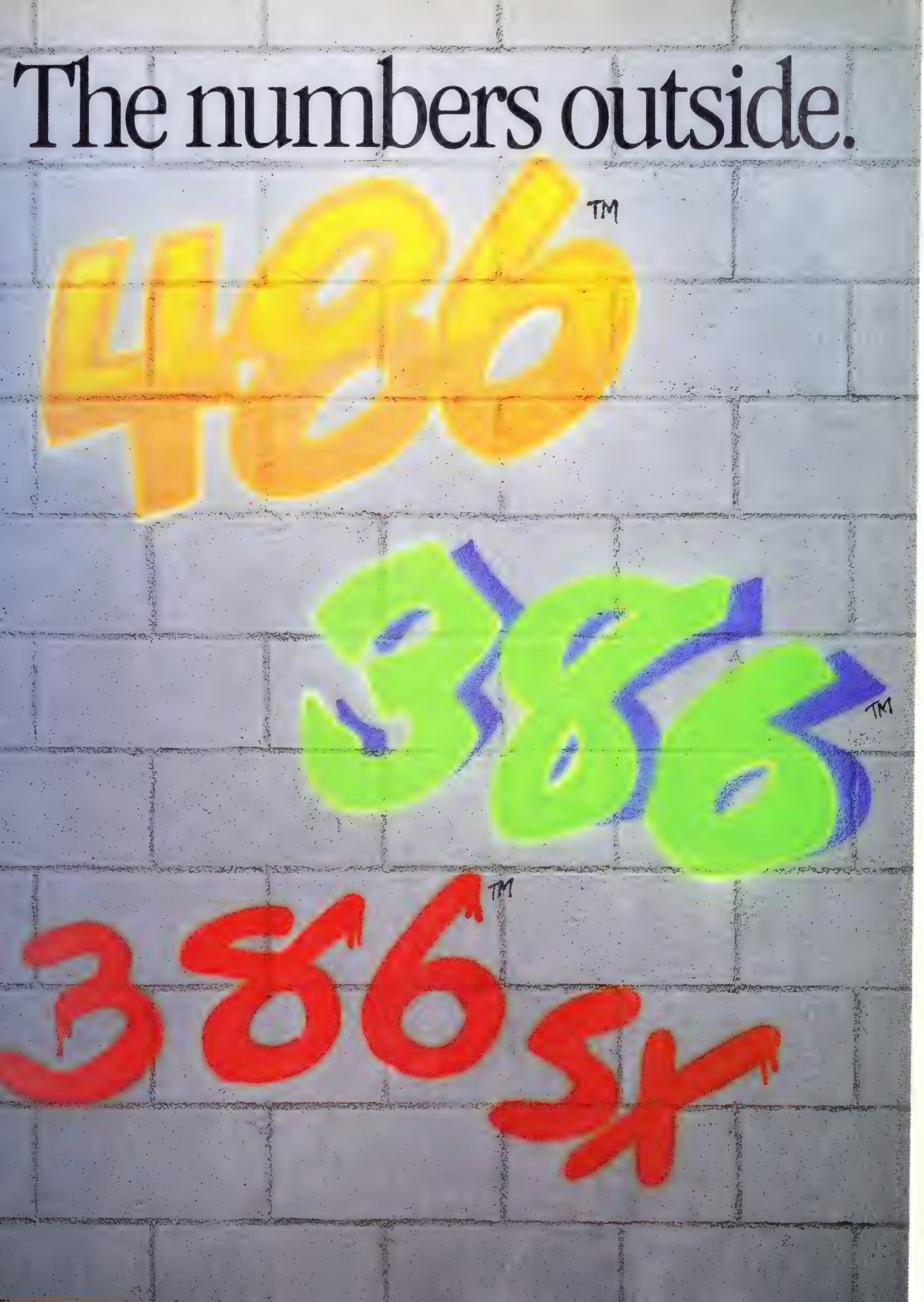
Success was swift. WR Lazard began with the District of Columbia and the state of Connecticut as clients, and within two years boasted a nationwide business. "They have performed with the same level of professionalism as the larger firms—oftentimes better," says Connecticut Treasurer Francisco Borges.

In fact, fast growth helped land Lazard in his current predicament. In 1988, Lazard went to Drexel, which often backed small companies, to find an acquisition candidate. WR Lazard borrowed $2.5 million from Drexel to buy Kuhns Brothers & Laidlaw Inc., a small brokerage firm. The purchase brought too much staff and office space when the municipal market was sinking. Lazard cut back, but just as the firm was profitable again, Drexel went bankrupt.

Lazard is confident the current crisis will be resolved soon and even talks about increasing the firm's capital from its current $5 million. Meanwhile, he says, other minority firms, which now number over 50, have tried to steal his customers by spreading word of his Drexel problems. Perhaps that's just Wall Street's way of paying tribute to any firm that blazes a trail.

By Leah J. Nathans in New York

The numbers outside.



BY GENE G. MARCIAL

HORN & HARDART: IN A HURRY TO GET OUT OF FAST FOOD

Shares of Horn & Hardart, one of the fiery takeover plays of the mid-1980s, have been in the deep freeze this year. But some pros are convinced that the stock has hit bottom, and they have started to buy in recent weeks.

Horn & Hardart, which is best known as the operator of the New York Automat cafeteria and restaurants such as Bojangles' and Arby's, has been in the red since 1988. And the shares took a dive from nearly 7 in January to 4 in April after California real estate investor Theodore Kruttschnitt agreed not to boost his 19% stake for two years in exchange for three board seats.

Yet Kruttschnitt may have been the major reason behind management's decision to sell most of the company's money-losing restaurant subsidiary and concentrate on its profitable apparel-and-gift mail-order business, which accounted for 72% of revenues last year.

Chairman and CEO Donald Schupak has announced that the company is actively negotiating to sell its H&H Restaurant division, which includes 22 company-owned and 127 franchised Bojangles' restaurants, 24 Arby's outlets, one Automat in New York, and two David's Cookies stores. Horn & Hardart also intends to sell its real estate properties in New York and Las Vegas as well as its interest in Paddlewheel Hotel & Casino in Las Vegas.

Says one pro who's buying: "We are convinced that by the end of the year, Horn & Hardart will have sold all of its restaurant operations, including the International King's Table chain. All those should bring in $160 million."

MAIL-ORDER MAGIC. Schupak maintains that the company will start posting profits after the sale of the restaurant assets. Most analysts and investors remain skeptical, but not investment manager Mark Boyar, who has accumulated a 3.5% stake in Horn & Hardart. Boyar is convinced that mail-order earnings will grow at 10% to 15% a year. In the first quarter of 1990, the unit racked up a 43% increase in revenues, to $115 million.

Boyar expects the company to show another loss this year, but for 1991, he sees earnings of $25 million to $30 million, or 65¢ to 75¢ a share. "Horn & Hardart stock is worth at least $13 a share," says Boyar. "In two years, it could be a $20 stock."

WHERE PINK SLIPS MEAN MORE WORK

When an investor group announced on July 6 that it had cut its stake in Right Management Consultants to 6.7% from 8%, the stock didn't lose its upward momentum: It vaulted a point, to 8½. That impressed analysts who had been nervous about the issue's sharp rise since February, when it traded at 4. So what's pushing up Right Management?

The company has been a big beneficiary of the steady stream of 1980s buyouts and restructurings. Right provides human-resource consulting to some 2,500 U. S. and European companies by helping them with worker-termination problems through training and development programs for laid-off personnel. It offers its services through 64 offices in the U. S. and Europe. Foreign operations account for 9.4% of revenues.

"Right is a pure play on the trend toward corporate downsizing, and the company's growth is very impressive," notes investment adviser Jack Sullivan of Van Kasper in San Francisco. Last year, revenues climbed to $23 million from $17 million in 1988. And Sullivan expects them to hit $30 million this year. The gains in earnings were even more impressive. Profits last year jumped to $1.2 million, or 46¢ a share, from $460,000, or 14¢ a share in 1988, and Sullivan figures they'll reach 75¢ a share for 1990. "The trend among corporations to keep lean and stay cost-efficient will continue," he says, "and should sustain a high demand for Right's type of services."

Over the short run, Sullivan thinks the stock could top 12. One kicker: Right is an attractive target for the likes of Manpower, the large Britain-based employment-services company. Right is a "cheap buy for such major companies even at twice its current stock price," says one big investor. Manpower didn't return calls.

PINKERTON'S IS BAGGING BUYERS

Investors have responded warmly to initial public stock offerings, most of which are from young companies. But a company that's about 150 years old has also become a hit. The stock of Pinkerton's, an internationally recognized name in the security-guard business, has zoomed to $20 a share from its April offering price of $14.

That 40% rise has even prompted an analyst at Smith Barney, Harris Upham, which co-managed Pinkerton's IPO, to put a "hold" opinion on the stock. But some smart-money investors are buying anyway. Says Barry Sahgal, a managing director at Ladenburg Thalmann: "Profit margins are improving, and its market share in the large but fragmented security business is significant."

Pinkerton's was a money-losing subsidiary of American Brands before it was sold to privately owned California Plant Protection in 1988. The new owner reduced costs and eliminated unprofitable units, causing combined revenues to drop to $605 million last year from $649 million in 1988. But the company posted a profit last year of $6.3 million, or $1.16 a share, compared with a loss of $592,000 in 1988. This year, Pinkerton's should earn $8.6 million, or $1.40 a share, estimates Ladenburg analyst Richard Rieger, and for 1991, he predicts earnings of $12.3 million, or $1.90 a share.

Rieger says the company, currently serving over 15,000 clients, will franchise the Pinkerton name and expand its private-investigation unit, which accounts for only 2% of earnings. The private-investigation work is a high-margin operation that should boost profits greatly, he adds, while demand for Pinkerton's unarmed security guards continues to rise.

The computer inside.

Since buying a computer today is such a umbers game, here's a simple rule of thumb. ook for 386™SX, 386™ or 486™ on the outside to be ertain that you have Intel technology on the side. From the company that invented the icroprocessor. The company that has shipped ver 10 million 32-bit processors. The same ompany that's investing over $1 billion this year to make sure the computer inside your computer has the technology, power and compatibility to take you into the future.

intel®

The Computer Inside.™

90 Intel Corporation.

The Computer Inside, 386 & 486 are trademarks of Intel Corporation.

PRESIDENT ALLAIRE IS ENGINEERING THE SHIFT IN STRATEGY

AT XEROX, THEY'RE SHOUTING 'ONCE MORE INTO THE BREACH'

The company is betting on a supermachine to end its losing streak in computerized office systems

In June, 1989, Xerox Corp.'s warring executives came together on neutral ground—a hotel at Chicago's O'Hare airport—to shuck their past and plan a new future. The company's trademark copier business was still churning out earnings. But Xerox was faltering in electronic document processing systems, even with the help of its famous Palo Alto (Calif.) research lab. After years of trying to diversify, Xerox' fate was still tied to the mature copier business.

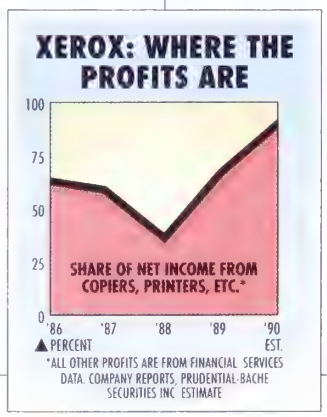
It took a newly hired outsider, former IBM man William C. Lowe, executive vice-president for development, to finally address Xerox' problem: Product development and marketing just weren't talking. At O'Hare, he gathered 18 top engineers, scientists, and marketing pros to hash out ways to focus research better and move the results more quickly to market. Some old Xerox hands balked, but as Lowe dryly notes: "Some of those people aren't with us now."

Lowe's meeting will go down in the history of Xerox as a turning point—or as yet another false start. Once again, the copier company has a plan to make it big in office systems. Leading the charge this time is President Paul A. Allaire, who becomes chief executive on Aug. 1, when Chairman and CEO David T. Kearns retires at age 60. Allaire's aim: leapfrog IBM, the Japanese, and other competitors with a family of all-new, all-digital, "image processing" machines. They'll do in a single box what now requires separate image scanners, laser printers, copiers, and fax machines. Xerox' first such all-in-one imaging product, due out in October, could play a key role in office computer networks, converting paper documents to electronic bits of information—and vice versa.

Allaire reckons the world currently spends $80 billion processing documents, and Xerox wants more of that money. Wayland R. Hicks, executive vice-president for marketing and customer operations, says digital imaging is destined to "reshape the [office systems] business."

Those are big words for a company that again and again has failed to do well in markets for equipment other than copiers. Xerox has struggled—usually in vain—in mainframe computers, word processors, computer peripherals, and workstations, to name just a few. This time, it thinks it has the edge with a multifunction product that's sharper, faster, and more flexible than the competition's.

HYBRID BOXES. But will that translate into profits? The new imaging system's $150,000 price tag will limit shipments to about 400 units by 1992, figures BIS CAP International, a market researcher that has worked with Xerox. Even though cheaper models will follow next year, customers have never before seen such hybrid machines. Xerox' sales force, more accustomed to dealing with copier buyers and printing department managers, will now have to sell to computer managers. And even if Xerox is able to sway them, the new business won't help the $17 billion company's



ngs anytime soon. Says Harold A. e, senior portfolio manager at Dela- Investment Advisers, Xerox' larg- shareholder: "We have a show-me ude."

rox could use a big hit. Kearns's into financial services hasn't paid The slumping insurance industry ed its Crum & Forster Inc. property casualty unit to abandon personal of business. And bad real estate at affiliate VMS forced a $400 on pretax write-off in 1990's quarter. Indeed, Xerox hasn't ed two consecutive years of ings growth since the 1970s. me from copiers and office sys- increased 20% in the first ter of 1990. But losses in fi- ial services and a steep drop in ilian sales have depressed ings for the first half.

r the full year, earnings will to $5 a share, down from in 1989, predicts B. Alex Hen- on, an analyst at Prudential- e Securities Inc. Financial ser- are expected to contribute 8% of profits this year—down nearly 40% in 1987 (chart). Ac- y, Allaire says he's rethinking cial services altogether. Al- y, Xerox' third-party leasing ations are on the block, and any insiders say he'll likely all financial services subsid- s once Kearns leaves as chair- in two years.

ON WHEELS. That puts even pressure on Xerox to pull a turnaround in office systems. Allaire, trained as an engineer, be the one to do it. With a luate business degree from negie Mellon University, he d Xerox 24 years ago as a fi- cial analyst. He climbed ugh the copier business to be- president in 1986. Allaire vs little of Kearns's charisma, colleagues hail his tenacity. to turn 52, Allaire rarely s down. In his spare time, he ages an impressive 18 mph on 4-mile bicycle route across the ng terrain near his home in Canaan, Conn. "I'm constantly try- to do it a little bit quicker," he says. e faster, the better. Allaire already slimmed Xerox' bureaucracy, reor- zing the corporation around a world- marketing department and unified luct-development and manufacturing sions. He has shuffled his manage- t team. Only half of the 10 top exec- es in office machines remain from re the shuffle, and of those, only arch chief William J. Spencer is still he same job. The new recruits hail such companies as IBM, Digital Equipment, and AT&T. "We needed some new blood," Allaire says.

Easily the most important outsider is Lowe, hired in December, 1988, to oversee the design and manufacture of all Xerox products. Lowe headed IBM's personal computer business from 1984 to 1988, which may help Xerox' upcoming push into office systems.

The vanguard of that effort is the new multifunction machine, secretly developed over the past six years under the code name Xenith. Eventually it will be made in several different versions for large and small groups of workers. As Xerox' first digital copier, it will capture images in electronic form, so they can be stored in a computer memory, manipulated by software there, reproduced via laser printer, and even transmitted to fax machines and other computers. People who have seen Xenith say it will print documents created on desktop computers, at speeds of up to 135 pages a minute and with an impressive 600-dots-per-inch resolution—about twice that of most laser printers. Traditional copiers will pale in comparison, analysts say.

LOWE: "WE'RE IN A NEW BUSINESS"

THE CHANGES AT XEROX

REEMPHASIS ON DOCUMENT PROCESSING

New digital-imaging systems to build on strong position in copiers and printers

NEW BLOOD

Seven key executives hired outside Xerox, including a product development chief from IBM

UNIFIED MARKETING

To help sell complete systems, six marketing arms now report to one executive

BETTER PRODUCT PLANNING

Marketing and product development groups ordered to cooperate via monthly meetings

ENHANCED FEEDBACK

40,000 customers polled each month on product needs and quality of service

DATA: BW

And having learned from past mistakes, this time Xerox is striving to make sure its office systems work easily with all popular brands of computer. In the past, customers balked at having to buy Xerox' proprietary—and expensive—workstations just so they could use its printers. To smooth links between Xenith and computers, Xerox will sell a so-called file-server made by NetFRAME Inc., a startup backed by Xerox. It will store reams of document images in a form that can be used by a Xenith as well as by networks of PCs. Meanwhile, Xerox has rewritten its own document-creation software, called Viewpoint, to run on Sun Microsystems Inc.'s popular workstations. No more proprietary systems, says Lowe: "We're in a new business."

Xerox already has shipped several Xeniths for field testing, even getting one into USAA, a San Antonio insurer that is IBM's flagship image-processing customer. But it faces a big marketing challenge: Xenith's near-offset print quality and speed make it a natural for high-volume corporate print shops. That, however, is not where computer buying decisions are made. At USAA, in fact, Xenith is being tested by the duplicating department, not by the computer gurus who are working with IBM.

CHEAPER RIVALS. More worrisome: After a long gestation—it was originally due out a year ago—Xenith may have lost some of its technical edge. Virtually every computer maker is moving into image processing and many are ahead of Xerox. Major Japanese electronics companies—Xerox' nemeses for 20 years—already sell digital copiers that are lower in cost, albeit less capable, than Xenith. Richard G. McGeary, chief financial officer for information systems at Connecticut Mutual Life Insurance Co., says he already has a PC-based system that can retrieve electronic images, manipulate them, and print them on a cheap laser printer. "I don't need a $150,000 piece of technology to do that," he says.

So Xerox is meeting with more than a little skepticism. But perhaps its strengths in high-tech copiers and laser printers finally will help it in office systems. And it may be more focused without the distraction of financial services. Yet unless Allaire's strategy pays off, his executives could well find themselves booked for another trip to O'Hare.

By Todd Vogel in Stamford, Conn.

THE EURO-GOSPEL ACCORDING TO PERCY BARNEVIK

He wants Asea Brown Boveri to be the model post-1992 multinational

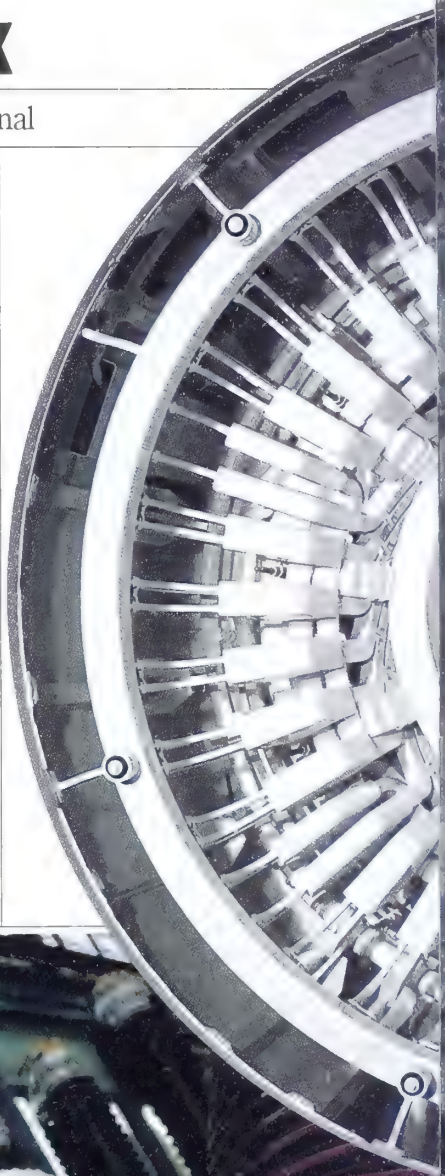
Ask any European executive which business leader he'll be watching over the next five years, and the answer is likely to be Percy Barnevik. Little wonder. Starting a decade ago at the helm of a slow-growing but respected Swedish electrical engineering company, Barnevik has created Europe's most dynamic manufacturing giant. Over the past three years, he has built ABB Asea Brown Boveri Ltd. into a $25 billion empire. Now, ABB spans Europe and, with its recent acquisition of Combustion Engineering Inc., is making waves across the U. S. and Canada.

With the foundation of his global company in place, the 49-year-old Barnevik is now attempting a corporate makeover that has never been tried anywhere. Barnevik is determined to shape ABB into what he believes is the model European company of the future. ABB, he says, is on its way to becoming an entirely new breed of corporation, breaking ground for the postmultinational company of the 1990s.

From headquarters in Zurich, ABB's stateless managers shuffle assets around the globe, keep the books in dollars, and conduct most of their business in English. Yet the companies that make up their far-flung fiefdom tailor ABB's turbines, transformers, robots, and high-speed trains to local markets so successfully that ABB looks like an established domestic player everywhere. Barnevik predicts such corporate ingenuity is the blueprint for the future. "If it works, it gives us a hell of a competitive edge," he says. He is endlessly preaching to European rivals that if they don't follow ABB's lead, they're doomed to be losers.

So far, his formula seems to be working. Barnevik has made ABB the world's leading supplier in the $50 billion electric power equipment industry, surpassing such household names as Westinghouse, General Electric, and Japan's Mitsubishi. ABB has already locked up as much as a third of Europe's business and more than 20% of the world market.

INSIDE TRACK. He has also positioned ABB as a leader in pollution-control equipment as a wave of environmental regulation sweeps the West—and Eastern Europe struggles to clean its filthy air and water. And as the world's largest maker of railway vehicles, ABB has



inside track on the $125 billion Eu-
e is planning to spend on a 20,000-
, high-speed rail network over the
t 25 years. ABB makes the ICE train,
ch hurtles between Frankfurt and
n at 125 miles per hour and can hit
mph on experimental track. Now,
is the front-runner in a bid to link Miami to Tampa by high-speed rail.

The management structure behind this sprawling company is relatively simple. ABB's local managers are its eyes and ears, but Barnevik and 12 top aides—6 Swedes, 3 Swiss, and 3 Germans—are the brains in Zurich. Like General Electric Co. Chairman John F. Welch Jr., with whom he is often compared, Barnevik runs a razor-thin organization. There are never more than five people between the CEO and the shop floor. Promotions and responsibility also come fast. On a recent trip to ABB's Polish turbine joint venture, Zamech, Barnevik selected 50 eager young managers, dubbed them his Polish wolves, and made them his point men for Eastern Europe. "I throw them into cold water and see if they can swim," he says.

That kind of toughness has made Barnevik something of a legend. In his native Sweden, long known as a workers' paradise, people still talk of the reign of terror during Barnevik's first hundred days at Asea, when he sent all but 200 of 1,700 headquarters staffers packing. One close adviser says he no longer uses the words "I think" in meetings with Barnevik. "Either you know or you don't," he was once told. And executives at the formerly complacent Combustion Engineering, which Barnevik bought in January, have the first two weeks with their new boss etched in their memories. That was when a top Barnevik aide arrived to sell three corporate jets and put the company's lavish headquarters on the block.

Such tactics have made Barnevik plenty of enemies as he gobbles up companies across Europe. He has generated a considerable backlash from unions and governments alike. Moreover, Barnevik's vision still is far ahead of reality. He and his lieutenants are struggling to control a mind-numbing 4,000 profit centers in 140 countries. Finally, much of his strategy rests on rosy forecasts of booming demand for power equipment. Since about half of ABB's business is power sales, that dependency could backfire if growth fizzles.

Barnevik's saga began in 1980, when his hard-nosed performance at Swedish cutting-tool maker Sandvik caught the attention of the influential Wallenberg family. During a weekend sail on the Baltic Sea, patriarch Marcus Wallenberg offered the overachiever, then 39, the top spot at troubled electrical engineering outfit Asea, of which the family holds 23%. The Asea job gave Barnevik an opportunity to observe the European power industry firsthand. What he saw made his mouth water. When Europe in 1986 pledged to create a single, deregulated market, Barnevik knew he was hearing the death knell of the coddled European power industry.

He made his first big move on that turf in 1987, when he took over BBC Brown Boveri & Co., Switzerland's largest manufacturing company, a sprawling but barely profitable maker of heavy-duty transformers and generators with major assets in West Germany. The deal nearly doubled Asea's size and launched Barnevik on an acquisition frenzy. He swept across Europe, buying up dozens of huge, state-owned or -backed companies in power and related industries. The score to date: 60 companies worth $3.6 billion.

BLITZ SWEDE. In the clubby, overprotected European power industry, this kind of coup had never been seen. Few industries nurture a cozier relationship with governments and state utilities than the equipment makers. Before anyone discovered what was happening, Barnevik crashed their little party, warning that protectionism wouldn't help anybody once Europe opened its state industries to competitive purchasing.

Although on paper Barnevik has only a management contract, BBC's complacent managers soon found out who was in charge. Barnevik quickly installed one of his closest aides, former BMW executive Eberhard von Koerber, as head of BBC's key operations in West Germany. Already, he has slashed central staff in

RBINE TESTING: IEVIK HAS CHED UP 60 ER-RELATED PANIES SO FAR

ARNEVIK'S PRINT: "IF IT KS, IT GIVES US LL OF A PETITIVE EDGE"

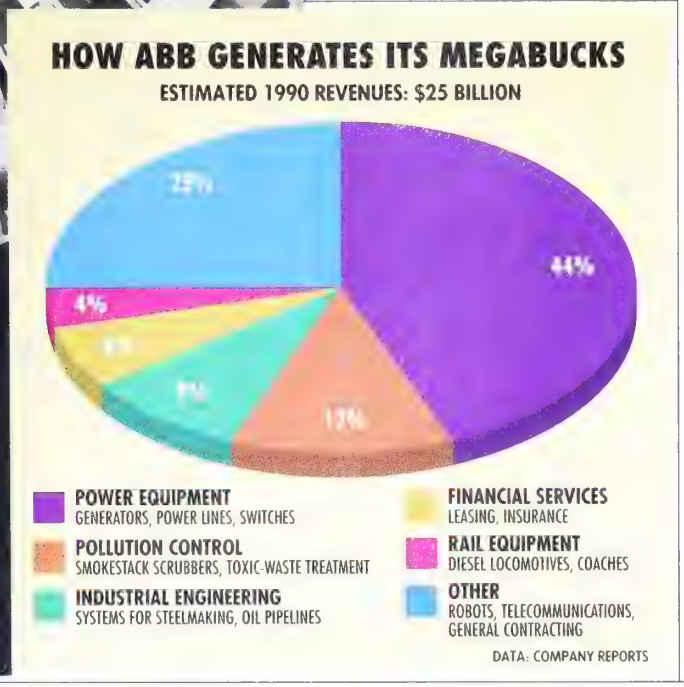


CHART BY LAUREL DAUNIS/BW

Germany from 1,600 to 100 in just 24 months. Net operating margins rose to 2.9% in 1989 from a measly 1.4% in 1988. And ABB is gaining market share on Siemens—with orders up 18% in a European market that grew only 5% in 1989.

These quick fixes have produced dramatic financial results for ABB. Earnings jumped 65% in 1989, to $922 million, and are forecast to rise an additional 25% in 1990. Now, Barnevik argues, ABB is on a solid footing for the even more daring next stage of his plan: to make ABB the first borderless company in Europe 1992.

Already, Barnevik is crashing those borders and testing the limits of deregulation. He's revamping his production and research and development to get rock-bottom costs. And he scares the competition with predictions that such streamlining will eventually trim prices by as much as 20%.

Some rivals have begun hustling in response to this message. Britain's General Electric Co. pushed France's Alsthom-Jeumont into an unlikely cross-border union to make power equipment, and even the powerful German supplier, Siemens, started making lowball bids to defend its turf. "Barnevik has been the catalyst for restructuring the electrical industry around the world," says Didier Pineau-Valencienne, chairman of the rival French electrical giant Schneider.

JOGGING BINGE. Barnevik learned the virtues of a lean-and-mean management style in Uddevalla, his hometown on Sweden's rocky western coast. The young Percy Barnevik worked long hours in his father's printing shop. "I saw how people pitched in there and worked on weekends," he says. Even now, his idea of a good time is an arduous jogging binge or a week-long hike through the Alps with his son.

Barnevik's latest trek is eastward, where he is challenging Siemens for sway over the East German power market. The goal is to pump up East European sales to close to $3 billion over the next five years. In the last few weeks, his West German team inked letters of intent with two leading East German equipment makers, Bergmann-Borsig in East Berlin and Automated Plant Assembly in Cottbus. The Cottbus plant was snatched out from under the nose of Siemens, which had annoyed the East Germans by dickering. Barnevik sees the former East bloc, with its antiquated infrastructure and fouled environment, as a "huge market for our type of business. But we know it will be a rocky road," he says.

ABB is just as busy moving west across the Atlantic. Two big deals last year helped Barnevik consolidate his hold in the U. S. In January, ABB completed the buyout of Westinghouse Electric Corp.'s U. S. power transmission and distribution business for $700 million. In addition to Barnevik's $1.6 billion acquisition of Combustion Engineering, that made ABB a big U. S. player in a host of power-related businesses—from clean-burning furnaces to municipal incinerators to nuclear reactors.

The Westinghouse acquisition was typical of the way Barnevik turns around an outdated business and globalizes its operations—from the factory floor to product design. In two years, profits at the formerly sluggish power unit are up a nifty 38%, to $65 million. To give American managers the know-how they lacked, ABB sent European production teams to the U. S., while U. S. managers toured ABB plants worldwide. Barnevik trimmed $4 million a year in inventory costs at the St. Louis transformer plant, and product quality and on-time delivery are improved.

Next, Barnevik will spend heavily to create a "global" transformer that combines state-of-the-art technologies from Asea, Westinghouse, and Brown Boveri. The global design will be customized to national markets, but with fewer parts than current transformers, it will be easier and cheaper to build. The products due in 1991, "will shatter past performance records," says Dean A. Yannucci, vice-president of the transformer unit.

While Westinghouse was happy to hand over its transmission and distribution business, Barnevik's agenda has raised a lot of hackles in Europe. He's catching flak from unions, especially Germany's largest, IG Metall, which is drawing the line on job cuts. And in Italy, he's in court trying to hold on to his joint venture with state-owned Finmeccanica. The Italians got angry when Barnevik bought Combustion Engineering, relegating their operations to second-class status. "Jack Welch would never have acted like this," fumes Finmeccanica President Fabiano Fabiani.

DR. DOOM? Then again, Barnevik doesn't act like anyone else in the power business. While Europe boosters love to talk about the palmy days ahead, Barnevik likes to play Dr. Doom. In a stump speech that he delivers to Europe's movers and shakers, he predicts that the first effect of European integration will be a bloodbath in which two-thirds of his competitors will lose out.

Yet ABB is vulnerable to all the same risks. Its future is firmly tied to the electric utility business. Barnevik is fond of slapping bullish forecasts on his slide projector that show electricity demand way outstripping capacity through the year 2000. He even foresees nuclear plants making a big comeback. But if the boom doesn't materialize, the brutal price-cutting he has made possible could come back to haunt him. A drastic drop in earnings from power would leave ABB with few other lifelines. Although the company is best known for beating out the Japanese as an industrial robot maker, its famous orange robots account for only 1.5% of its sales. Some of Barnevik's bets on futuristic high-speed trains are also years away from a payoff, and while his line of pollution-control equipment looks like a sure winner, his biggest market, Eastern Europe, doesn't have money to pay for it. The bottom line is that environmental work still contributes only 15% of ABB's sales.

Barnevik's answer to this uncertainty is that he'll be one of the survivors, leading the market instead of getting beaten by it. "One of the reasons that [ABB] likes these industries is that a lot of competitors have moved out," says Robert W. McCoy Jr., of UBS Phillips & Drew. By moving in where fainter-hearted companies have fallen, Barnevik has already made ABB a trailblazer for European manufacturers.

By Jonathan Kapstein in Brussels and Stanley Reed in New York, with Gail E. Schares in Bonn, Gregory L. Miles in Pittsburgh, and John Rossant in Rome

PERCY BARNEVIK BUILDS HIS GLOBAL POWERHOUSE

Aug. 1987 ABB formed after Europe's largest cross-border merger weds Sweden's Asea to Switzerland's Brown Boveri. New giant has $17 billion in revenues

Oct. 1988 Big moves in West Germany, snapping up the steam turbine business of AEG for an undisclosed price and inking a nuclear reactor joint venture with rival Siemens

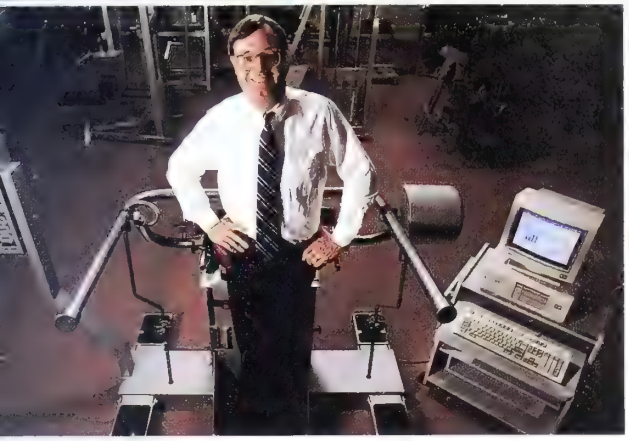
Jan. 1989 Signs joint venture with Italy's Finmeccanica with sales of $1.2 billion. He also takes a 40% stake in Britain's leading railcar manufacturer, BREL

Feb. 1989 Moves into U.S., starting with buyout of Westinghouse's power distribution and transmission units for $700 million

Jan. 1990 Completes the $1.6 billion takeover of boiler and nuclear plant builder Combustion Engineering, boosting North American sales to $7 billion. Moves into Eastern Europe by taking a majority stake in Polish turbine maker Zamech. Buys Spanish electrical group CCC, with $200 million in sales

June 1990 Links with Bergmann-Borsig, a major East German electrical-equipment supplier

OTECHNOLOGIES: COMPUTERS THAT ATCH BUSINESS' BACK



ARLA: A BETTER WAY TO DIAGNOSE LOWER-BACK INJURIES

ew employee health problems are as hazardous to a compa-ny's bottom line as lower-back injuries. They cost business billion a year, but doctors and therapists often can't deter-e what's wrong—if anything. And since many employees r re-injury, they're reluctant to come back to work.

Iow there's a computerized machine that gets workers back their feet faster by allowing doctors to better measure er-back mobility. Manufactured by Isotechnologies Inc. of sborough, N. C., the machine can also detect faked back n. That could help companies reduce soaring liabilities. "I nt to go down as the guy who turned a $40 billion industry a $20 billion industry," jokes President John Skvarla, a 42-r-old lawyer who joined Isotechnologies in 1987.

s an unknown, private Isotechnologies has found it tough penetrate the fragmented physical therapy market. But the npany, which bought the rights to the technology from its entor in 1982, is starting to make inroads. A growing stable businesses, including Coca-Cola Enterprises Inc. and the S. Postal Service, are sending employees to therapists who the $66,900 B-200 to measure their progress. Workers are apped upright into the B-200, which tracks their movement a computer screen. Kathleen Bryant, director of industrial rsing for Hasbro Inc., says the machine has cut in half the rage time that employees with back injuries are out from rk. "Our return rate has been astronomical," she says. With cesses like that, Isotechnologies could help lift a heavy rden from companies' backs.

By Dean Foust in Hillsborough, N. C.

VIGEN: HIGH-TECH TESTING ITH OLD-FASHIONED SERVICE

Any parent knows that waiting for the birth of a baby is a nerve-wracking experience. Even worse can be the ago-ing three-week wait for the results of genetic tests for ssible birth defects. Thomas K. Reed Jr. changed that when helped start Vivigen Inc. in 1981. Based in Santa Fe, N. M., company has emerged as a leader in the growing $200 lion genetic testing industry. Other labs also analyze chro-somes and proteins contained within genes, but Vivigen ivers results in just seven days.

Vivigen owes its edge less to technology than to business basics such as customer service. Most of Reed's competitors are small labs that don't specialize in genetic testing. "Vivigen emphasizes service, meeting the demands of clients who want prompt diagnosis," says Dr. Maurice J. Mahoney, professor of human genetics at the Yale University School of Medicine.

REED: FAST RESULTS FOR PARENTS-TO-BE

Vivigen recently opened a molecular lab to analyze DNA material found in chromosomes. Start-up costs for the lab dragged net income down 43% in the first half, to $487,273. But Reed expects molecular testing to account for 50% of Vivigen's sales by 1995. Last year, Vivigen earned $318,894 on revenues of $2.5 million.

Reed is turning day-to-day control of Vivigen over to new Chief Executive John H. Pietri Jr. so he can pursue other investments. Pietri, a 25-year IBM veteran and longtime board member, will get plenty of help from Dr. Kyrieckos A. Aleck, Vivigen's lab director, and Reed, who'll remain as chairman. Fortunately for Vivigen, more expectant parents want to learn about genetic disorders sooner rather than later.

By Sandra D. Atchison in Santa Fe, N. M.

TRENDS

SORRY, KIDS, BUT BUSINESS IS BUSINESS

Instead of passing the family business along to the kids, entrepreneurs would rather take the cash. A survey of 350 small-business owners conducted in May by the American Institute of CPAs found that less than a quarter would turn over the company to a family member if they were to make an ownership change in two years. Topping the list was selling to a large corporation.

Plans varied according to company size, industry, and geographic location. Owners of companies with annual sales of more than $25 million were most likely to keep the business in the family. So were retailers. But owners in the Southeast were twice as likely to say they'd sell to outside investors than those in the Northeast. The median annual sales of the businesses surveyed were $5 million.

WHAT PATH WOULD YOUR COMPANY FOLLOW IF OWNERSHIP WERE TO CHANGE WITHIN THE NEXT TWO YEARS?

	Percent		Percent
SELL TO A LARGER CORPORATION	25.9%	SELL TO INSIDERS	15.9%
SELL TO OUTSIDE INVESTORS	25.1	DON'T KNOW	3.6
PASS THE BUSINESS TO FAMILY MEMBERS	22.3	GO PUBLIC	2.5
		LIQUIDATE	1.9

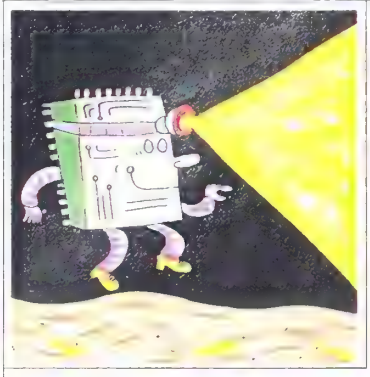
DATA: AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS

(L TO R) PHOTOGRAPHS BY CHARLES GUPTON CHUCK SLADE

Developments to Watch

EDITED BY WILLIAM D. MARBACH

MICROCLUSTERS: LIGHTING THE WAY TOWARD FASTER COMPUTERS



When researchers talk about ultrafast computers, they predict the machines will use light waves instead of electrons. But the optical switches for such computers require expensive crystals and other exotic materials that react only to light of certain intensities. Now, chemists at Massachusetts Institute of Technology have come up with a new, cheaper way to make these materials by producing "microclusters"—ultrasmall particles of semiconducting materials such as lead sulfide that fit inside much larger plastic molecules.

Scientists say the process yields microclusters as small as 15 angstroms, or about 10 atoms wide. That size offers better control over switching performance. And by embedding the microclusters in plastics, researchers hope to create materials that can be shaped to make optical switches and filters. Chemistry Professor Richard R. Schrock, who heads the MIT research, says the team has made microcluster films and cylinders and may eventually produce sheets of the material.

HUMAN BOOBY TRAPS THAT ZAP MALARIA MOSQUITOES

Despite years of research, efforts to develop an effective vaccine against malaria have failed. But Stanford University immunologist Leon Rosenberg has a new approach to containing the disease: turning malaria victims into human booby traps that would kill mosquitoes that bite them.

Rosenberg got the idea from studies showing that cattle injected with ground-up ticks developed antibodies that then killed live ticks feeding on the animals. Malaria spreads when a mosquito bites a person who has the malaria parasite and then bites an uninfected person. So Rosenberg reasons that ground-up mosquitoes injected into humans will spur production of antibodies lethal to live insects.

He plans to test the idea first with mice. One group will be immunized with ground-up fleas, while another will be a control. If insects feeding on immunized mice die and those in the control group live, researchers will have a potentially effective tool. Rosenberg says it will take several years to develop the vaccine. Then, he must persuade malaria victims to be immunized, though they won't benefit from the treatment.

THE MARKET HEATS UP FOR 'WARM' SUPERCONDUCTORS

After initial euphoria over the discovery of new superconductors three years ago, scientists have been working to turn the breakthrough into useful technologies. Now, the first products are beginning to emerge. Conductus Inc. in Sunnyvale, Calif., has started up a fabrication line to produce superconducting chips. They're made of yttrium barium copper oxide deposited on a one-inch wafer of sapphire or magnesium oxide, which is cut up into chips. The devices are then encased in breadbox-size chambers of liquid nitrogen or hydrogen to keep them at -284F, the temperature at which the material freely conducts electrons.

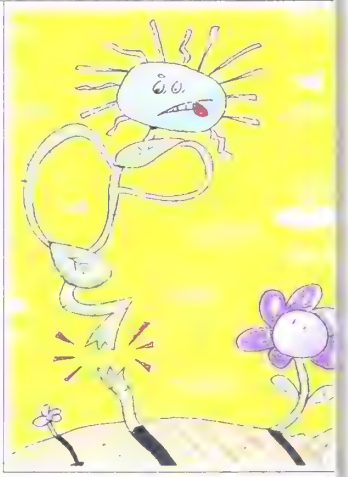
Currently, Conductus sells the wafers mostly to research labs. The company is also using them to make a sensor that can detect the tiny magnetic fields produced by brain activity, so that epileptic tissue, for instance, can be located for surgical removal. Conductus isn't alone. Superconductor Technologies Inc. of Santa Barbara, Calif., recently began selling superconductors for use in microwave communications equipment. Conductus says its plant will eventually churn out 12,000 chips a year. That's low by Silicon Valley standards, but the chips will fetch up to $1,000 each—about three times what a leading-edge microprocessor sells for

NUKING NASTY MEDICAL WASTE —IN A MICROWAVE

Disposing of infectious medical waste is a vexing, costly problem for hospitals. Most must pay top dollar to contractors who haul contaminated gowns, surgical gloves, and other debris to special incinerators. Now, a North Carolina hospital is the first in the U. S. to use a high-tech solution: microwaves. Winston-Salem's Forsyth Memorial Hospital gained state approval to fire up a microwave disinfectant system from Vetco Sanitec, a West German unit of ABB Asea Brown Boveri (Holding) Ltd. The $650,000 installation shreds the waste, sprays it with steam, and then zaps it with microwaves. That leaves it less than one-eighth its original bulk and with fewer bacteria than household waste. The hospital says it can send the disinfected trash to a local landfill.

Forsyth officials say regulations still require some waste, including human tissue, to be incinerated. But the hospital figures it can cut its incineration bill so much that the installation should pay for itself by 1993. Similar savings have been reported by hospitals in France, Italy, and West Germany.

TRICK THE WEEDS, AND THEY'LL COMMIT SUICIDE



Like the human immune system, plants have defense mechanisms to ward off invasion by pests and foreign substances. Scientists are using this phenomenon to try to create natural herbicides. Purdue University Professor Ralph L. Nicholson has found a way to trick certain weeds into destroying themselves. Sorghum seedlings have a natural defense against anthracnose, a fungal disease. They produce toxic compounds known as phytoalexins that are so potent they kill the fungal spores—and some of the surrounding tissue of the plant itself.

Nicholson used this discovery on several plants that can be agricultural pests—Johnsongrass and shattercane, which are closely related to sorghum. An applied solution made from fungal slime causes Johnsongrass and shattercane to produce huge quantities of the toxic chemicals, and the plants die. More research, Nicholson says, could lead to a highly selective herbicide to protect corn, cotton, and other crops.

HOW LONG IS LONG TERM?

The answer is another question: how long do you need us for? Because, unlike other banks, The Long-Term Credit Bank of Japan will follow your business through from start to finish, until all your plans are successfully realized.

That's a policy that has helped us become one of the world's top 20 wholesale banks with over 60 offices around the globe.

We were originally established in 1952 to ensure a steady flow of long-term funds for industrial growth.

Now we've expanded to operate in Long-Term Corporate Financing, Merchant Banking Services such as Project Finance, Mergers and Acquisitions, Leasing, and Investment Advisory Services, as well as a full range of additional Banking Services.

Why not get in touch with LTCB and find out what lengths we'll go to for you?

LTCB

The Long-Term Credit Bank of Japan, Limited

Branches and Agency: New York (212) 335-4400, Chicago (312) 704-1700, Los Angeles (213) 629-5777
Representative Office: Toronto (416) 865-0711, Atlanta (404) 659-7210, Dallas (214) 969-5352
Subsidiaries: LTCB Trust Company (212) 335-4900, Greenwich Capital Markets, Inc. (203) 625-2700, Capstar Partners, Inc. (212) 557-1668

Turn On The Meeting.

Just touch a button. And instantly make your presence felt like never before.

Meet face-to-face with 30 branch managers at once. Coordinate product development with your marketing, engineering and manufacturing sites. Speed up the decision making process. Imagine the possibilities.

Meet the future of meetings. Video Communication Services from Pacific Bell. Or, how to be everywhere at once—without going anywhere at all.

Pacific Bell can provide the perfect video teleconferencing system for your business needs today. From design to installation to on-going support.

After all, we have our fair share of experience. Immediately following the October 17th earthquake in the Bay Area, we coordinated a system that allowed for critical video communication among three key emergency agencies in Sacramento, San Francisco and Mountain View.

"The unanimous response of all participants was extremely favorable," said Jon Madzelan, Chief of Telecommunications for the Office of Emergency Services in Sacramento. "We all now wonder if we could have done as well without it! I doubt it."

Now it's your turn. For full details and a demonstration, contact your Pacific Bell Account Executive, or call 1-800-622-0735, ext. 201.

Video teleconferencing from Pacific Bell. You've got to start meeting like this.

We're making things easier.™

A PACIFIC TELESIS COMPANY

PACIFIC BELL.
Data Communications Group

© 1990 Pacific Bell

68B-CA

Click here for power.

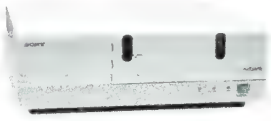
Let's take a moment to fantasize.

Imagine administration software that lets you add, modify and delete users, groups and volumes on your Macintosh® network. Imagine being able to backup local drives to the server. And publishing usage reports to monitor network activity and troubleshoot bottlenecks. And electronic mail that connects with any UNIX® e-mail system. And a dual-processor architecture server, designed for intensive disk operations and demanding I/O processing.

All available at the click of a mouse.

Now let's talk fulfillment: uShare Plus™ software on the Sony NEWS® fileserver. It offers all the above and more—installed, configured and administered from the comfort of your Macintosh environment. Fully AFP compliant, so all existing applications run without modification.

Click for yourself and find out. Call 1-800-624-8999, ext. 96, to arrange a demo.



SONY

Sony Microsystems Company
651 River Oaks Parkway, San Jose, CA 95134, (408) 434-6644, FAX: (408) 954-0849

Sony and NEWS are trademarks of Sony. uShare Plus is a trademark of Information Presentation Technologies, Inc.
Macintosh and the Apple logo are registered trademarks of Apple Computer Inc. UNIX is a trademark of AT&T. © 1990 Sony Corporation of America

Lots of people are working to get kids off the street.

Every year, over 5,000 American children are buried in unmarked graves. And a lot of people work very hard to put them there. Drug dealers with dirty needles. Pimps who rule with a fist. Child molesters in expensive cars. Fortunately, Larkin Street is working to get kids off the street, too. With food, clothing, medical care, professional counseling—and lots of hope.

Please support Larkin Street's work.

Kids are dying for your help.

Larkin Street Youth Center

1044 Larkin Street, San Francisco, CA 94109

415-673-0911

ARCH

EW HOPE OR NEUROTRANSPLANTS

tal cells help Parkinson's and more, but controversy continues

A brain transplant wasn't exactly what Donald Nelson had in mind. At 53, the Colorado resident has fered for 20 years from the tremors muscle rigidity of Parkinson's dis-, which currently affects 1 million ericans. So in November, 1988, in the st attempt to control his disease, Nel- signed up for what he assumed was another experimen- drug. Instead, he be- e the first American receive a much more troversial treatment: tors at the Universi- of Colorado Health nces Center implant- in one side of his n cells taken from brain of a first-tri- ster aborted fetus. ir hope: that the cells ld provide the chemi- whose absence ses the symptoms of kinson's.

ince then, Nelson's t has improved ugh that he usually sn't need crutches. has regained the use is left hand. And his ular dosage of medi- has been cut by . Nelson is one of 90 kinson's sufferers ldwide who have re- ed so-called neuro- nsplants using fetal in cells, and research- of other diseases are ouraged by the re- s. They are investi- ing transplants for ating neurological problems such as ntington's disease, epilepsy, spinal in- es, and perhaps Alzheimer's disease stroke. Although all of this work is on animals, scientists are optimistic. think there's enormous hope for neu- al replacement," says Fred H. Gage, rofessor of neuroscience at the Uni- sity of California at San Diego.

hose hopes are renewing the simmer- debate over the medical use of fetal tissue. Even as Nelson was feeling well enough to begin gardening and to start some woodworking projects, a local Catholic church newsletter criticized his surgery. Antiabortion groups, comparing the procedure to medical experiments performed by the Nazis, fear that if transplants become routine, doctors will persuade more women to have abortions. Last November, the Health & Human Services Dept. indefinitely extended a ban on federal funding for research that uses fetal tissue.

NELSON: THE FIRST U.S. FETAL-CELL RECIPIENT REGAINED THE USE OF HIS LEFT HAND

This opposition is prompting a search for alternatives to use in neurotransplants. Several pharmaceutical companies, including Bristol-Myers Squibb, are funding these efforts, as are venture capital concerns. The reason is that, unlike fetal cells, alternatives such as genetically engineered cells would be patentable. But replacements for fetal tissue are hard to find. Adult nerve cells carry chemical markers—not yet developed in fetal tissue—that identify them as foreign. When implanted into another brain, they are rejected by the immune system. Fetal cells, which by definition are not yet mature, "are in a very plastic state, genetically programmed to form connections and [reconstruct] the circuitry of the brain," says Anders Bjorklund, a neurobiologist at the University of Lund in Sweden. Transplant work using fetal tissue continues at two privately funded centers in the U. S.—the Colorado facility and Yale University. Sweden, where abortion is less controversial, also is an active center for neurotransplant research.

Last February, in fact, researchers from Bjorklund's group reported that a year after surgery, a 49-year-old man with Parkinson's had experienced improvement on both sides of his body after a fetal transplant. And using positron-emission tomography—a sensitive imaging technique—they showed that grafted fetal neurons had survived and were churning out dopamine, a brain chemical that helps stimulate motor activity and is missing in Parkinson's sufferers.

NOT QUITE. In the past, scientists have transplanted cells found in the adrenal gland—located near the kidneys—that also produce dopamine. But reports of big improvement, after operations done three years ago in Mexico, haven't been duplicated. "It's clear that adrenal tissue is a fairly poor substitute for the real thing," says Bjorklund.

So researchers are looking for ways to make the use of fetal tissue more palatable. One way, says Dr. D. Eugene Redmond, who heads Yale's neurotransplant program, is to change the way it's collected. Currently, fetal cells must be transplanted just hours after an abortion. Critics worry about doctors recruiting fetal-tissue donors to bring to a hospital for a specific neurotransplant operation. So Redmond's lab has developed a method to

RAY NG

freeze fetal cells—for up to two months so far. Besides de-emphasizing the connection between abortion and brain surgery, freezing the tissue gives researchers time to make sure they have dopamine-secreting cells and lets them test for bacteria or viruses. So far, Yale scientists have operated on seven patients. And though Redmond doesn't want to release results yet, he says: "We do know that cryopreserved cells contain dopamine and are 98% viable."

For the long term, however, Redmond, like most scientists, wants to find alternatives to fetal tissue, if only to avoid the hassle of securing four or more suitable fetuses for a single neurotransplant. The answer could lie in another controversial technique: gene therapy. UCSD's Gage is slipping the gene for tyrosine hydroxylase, an enzyme that stimulates cells to make and secrete dopamine, into the skin cells of animals. When transplanted into a rat's brain, for example, the skin cells churn out the enzyme that turns on the brain's dopamine supply. The benefit of this approach, says Gage, is that the skin cells—called fibroblasts—don't die off, but continue to grow. "In animals, we've seen survival of primary fibroblasts for six months, or one-quarter of a rat's life," says Gage. He adds that the transplant also ameliorates most of the rat's Parkinson's-like symptoms.

LAB CELLS. Fibroblasts could solve other problems in the brain, too. One possibility is to use them to deliver nerve-growth factor (NGF), a molecule that helps keep alive the neurons that die off in the brains of Alzheimer's sufferers. In Sweden, researchers have put tiny pumps in a patient's brain that constantly secrete NGF produced by genetic engineering. The Food & Drug Administration has not approved so-called recombinant NGF in the U. S. But Gage suggests that if the technique shows benefit, "there is impetus to do this with fibroblasts."

Fibroblasts do have limitations. Most important: They do not make the point-to-point connections needed for communication in the brain. That means they wouldn't be helpful in repairing damage caused by strokes or in curing epilepsy. Brain cells cultured in the laboratory might work better—eventually. Hana Biologics Inc., in Alameda, Calif., is trying to coax cells that produce tyrosine hydroxalase to grow in a lab dish, and several other startups are also investigating culturing methods.

For now, however, fetal tissue is still the only route. Don Nelson—though he isn't cured—is proof of that, but he may be particularly lucky. Until fetal tissue substitutes are found, millions of other patients will wait years for treatment of their neurological disorders.

By Naomi Freundlich in New York

Economics

EMPLOYMENT

DANGEROUS CURRENTS UNDER THE JOB NUMBERS

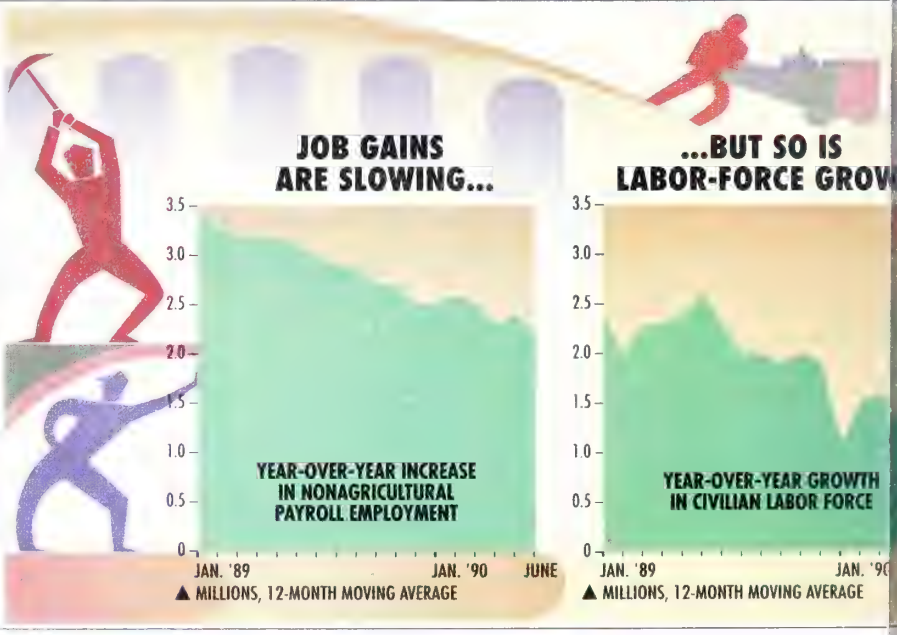
Unemployment looks stable—but many workers are dropping out

Government statistics can be pretty boring, and this one has been more of a yawner than most. For two years running, the unemployment rate has oscillated gently around 5.3%. Unlike other indicators that have begun to demonstrate weakness in the economy, the unemployment rate has been a beacon of health.

Don't be lulled by the apparent stability of the jobless rate, however, because it masks a great deal of churning. Layoffs are on the rise. Job creation is slowing, and what little growth there is can be found outside the manufacturing sector. More people are being offered early retirement—and taking it. Increasing numbers of workers are becoming discouraged about job prospects and simply dropping out of the labor force. Add it all up, and the picture doesn't look quite so bright. "We are about as close to recession as we can be without actually being in one," says Allen Sinai, economist at Boston Co.

Not all economists are as gloomy as Sinai, but most agree that the unemployment rate is providing a poor picture of the underlying strength of the job market. Announcements from companies around the country make it clear that prospects aren't bright. General Motors, Ford, and Chrysler together report nearly 39,000 workers on indefinite layoff. Defense contractors Douglas Aircraft and Lockheed Corp. are eliminating at least 12,000 jobs this year through layoffs and early retirements. In New York, Chase Manhattan Bank is slicing 3,000 from its payroll. Computer giant IBM is tightening its belt, eliminating 10,000 jobs in the U. S. this year. Even Seattle-based Boeing Co., with a huge backlog of commercial aircraft orders, will reduce jobs through layoffs and attrition by about 8,000 this year, with two-thirds of the reduction in defense businesses and the rest in commercial aircraft.

SIMPLE EXPLANATION. Nationwide, this year's layoffs continue a trend begun last year, when layoffs, according to the Bureau of Labor Statistics, rose by 23% to a total of 572,143 workers. While the layoff numbers are troubling, they don't translate directly into sharp declines in payroll employment. That's because even while many jobs are being destroyed, others are being created by flourishing businesses. Microsoft Corp., for instance, plans to add 2,500 workers in the next year, mostly in sales and



vare development, to its current oll of 5,500.

onetheless, new jobs simply aren't g created as quickly as a year ago. ne first half of 1989, the economy gaining jobs at the rate of about 000 a month. That pace slowed to 000 a month in the second half and t 130,000 a month in the first half of year, not counting the bulge in temry census workers. And in June, a 40,000 jobs were created.

eakening demand for workers—as enced by rising layoffs and slowing growth—should have pushed the unoyment rate higher by now. Even eral Reserve Board Chairman Alan enspan conceded ry that he was puzby the rate's stabil Numerically, at , there is a simple anation: Just as the and for workers s to be plateauing, oo, has the supply of kers. That means the unemployment can remain unged or even decline. fficial data show labor-force growth slowed to a crawl. In first half of 1989, the force was growing at an annual of 1.9%, or adding more than 2 mil to the work force. By the second ter of this year, that rate had slid to , or about 1 million workers.

e big mystery is why labor-force vth has slowed so sharply. Some exs, in fact, warn that the extent of deceleration is suspect and may be sted when the BLS revises its emment data in September. But many omists believe that changing demographics may be responsible for at least part of the slowdown in work-force growth. Among men aged 45 to 64, says Richard B. Berner, economist at Salomon Brothers Inc., early retirement is thinning the ranks of the employed.

Content with generous severance packages, many retirees don't seek other employment, so they are no longer counted as members of the labor force. The BLS reports that the number of retirees not looking for work has been climbing steadily, from 17.2 million in the first three months of 1989 to 18.4 million in the second quarter of 1990.

BABY BOOMLET. And as more women leave the work force temporarily to bear children, that, too, is depressing labor-force growth. Last year, the National Center for Health Statistics estimates, 4 million babies were born in the U. S.—more than in any other year since 1964. Female labor-force growth has slowed by two-thirds, to a 1.1% rate, over the past 18 months, observes Berner.

> Among men aged 45 to 64, early retirement is thinning the ranks of the employed

If people are leaving the work force voluntarily and temporarily, that doesn't say much about the health of the economy. But if people are leaving the work force because they don't believe they have any hope of gaining employment, that's troubling. In fact, such discouraged workers numbered nearly 900,000 in the second quarter of 1990, up from 747,000 the previous quarter. If all those workers had been included in the ranks of the unemployed, the jobless rate for June would have been 5.8% rather than 5.2%.

Despite its long-standing steadiness, the unemployment rate should at last start inching its way up in coming months—and a sudden spurt is possible. By the end of this year, many forecasters believe, the unemployment rate will settle somewhere around 5¾%, finally beginning to reflect a sluggish economy. Over the next few months, labor-force growth is unlikely to match job creation so neatly. And slow job growth seems assured. With corporate profits in the doldrums, observes economist Neil M. Soss of First Boston Corp., companies have a choice: They can raise prices or cut costs. In a sluggish but still competitive economic environment, raising prices isn't smart. Instead, companies will lay off workers and move slowly to add them even if orders pick up. So, in the future, those pink slips will keep on coming.

By Karen Pennar in New York, with bureau reports

Take care of business.

☐ I'm moving, please change my address as indicated below

☐ Please extend my Business Week subscription for one year at **$39.95** (In Canada C$ 54.95)

☐ I'd like to become a subscriber for one year (51 issues) at **$39.95**

Name (please print)

Address

City

State Zip

☐ Check enclosed ☐ Bill me later

To take care of any other business, call

1-800-635-1200

Affix your present Business Week mailing label here

Mail entire ad to:
Business Week
P.O. Box 421
Hightstown,
NJ 08520

BusinessWeek
SUBSCRIBER SERVICE

PROMOTERS

WHEEL OF FORTUNE: CONNELLY'S VENTURES INCLUDE HOTELS, BROADCASTING, AND MARKETING

TALK ABOUT A RIVERBOAT GAMBLER

Pittsburgh's John E. Connelly is betting big on waterborne betting

On the rare occasion when he's not managing his fleet of riverboats or tending to his promotions business or any of his several other enterprises, John E. Connelly permits himself to relax with a roll of the dice. Though he's been known to lose, colleagues have seen him win as much as $40,000 at the craps table in Las Vegas. Says Alan Bernthaler, chief financial officer of Connelly's JEC Enterprises Ltd.: "I'd never bet against him."

Connelly, 64, now wants to try his luck on the other side of the table. Playing on his strong suit in the riverboat excursion business, the Pittsburgh-based promoter plans to install slot machines and gaming tables in some of his boats and make a name for himself in riverboat gambling. Already, a number of states have begun to look favorably upon the pastime: In the past 12 months, Illinois, Iowa, and Mississippi have approved gambling on waterways, and several others are considering it. Connelly is working on a project in Iowa, and he plans to move into Pennsylvania and Missouri if gambling gets the go-ahead.

LOW ROLLERS. States see dollar signs in the business. To discourage high rollers, most states plan to limit betting. The Iowa law caps single bets at $5 and limits nightly chip sales to $200 per person. Yet some gaming experts warn that backwater Midwest and Southern areas may have trouble enticing enough gamblers year round to make the business a consistent moneymaker. As more states rush to get a piece of the action, some say, tourist dollars will be spread thin.

Connelly insists that success will come for those who pick the right cities. Eager to be in the vanguard, he has already made himself available, gratis, as a consultant to state officials in Iowa, Illinois, and Mississippi. He's advising them on structuring development and waterfront agreements, and on setting specifications for riverboats. "I don't have the ego of Donald Trump," he says, "but thank God John Connelly came on the scene, or riverboat gambling could have been a fiasco."

He defines himself as "self-raised and self-made." When he was 16, his father, a car salesman, died. As the eldest son, Connelly had to help his mother suppo his four siblings. From 16 to 18 he eve brought in $750 as a professional boxe before briefly attending the Universi of Pittsburgh. In the 1940s, he founde the promotions firm, which began by c fering pens and other gifts as incentiv to savings-and-loan customers. E launched his first riverboat, Gatewa Clipper, in 1958, with profits from th promotions company.

> 'Thank God John Connelly came on the scene, or riverboat gambling could have been a fiasco'

$15 GLASSES. Today, Connelly owns riverboats in Pittsburgh, St. Louis, ar Augusta, Ga. He also owns the prom tions firm, a hotel in Pittsburgh, and television and movie production studio New York. Connelly's personal fortur is estimated at $100 million, but wealt hasn't changed him much. He wears $15 pair of drugstore-bought readin glasses. He worries little about attir wearing clothes he says he gets as gif from relatives. Connelly does allow hir self a treat or two, though: Nine yea ago, he bought a $105,000 Rolls Royc And he owns a Lockheed Jet Star, photo of which he keeps in his briefcas

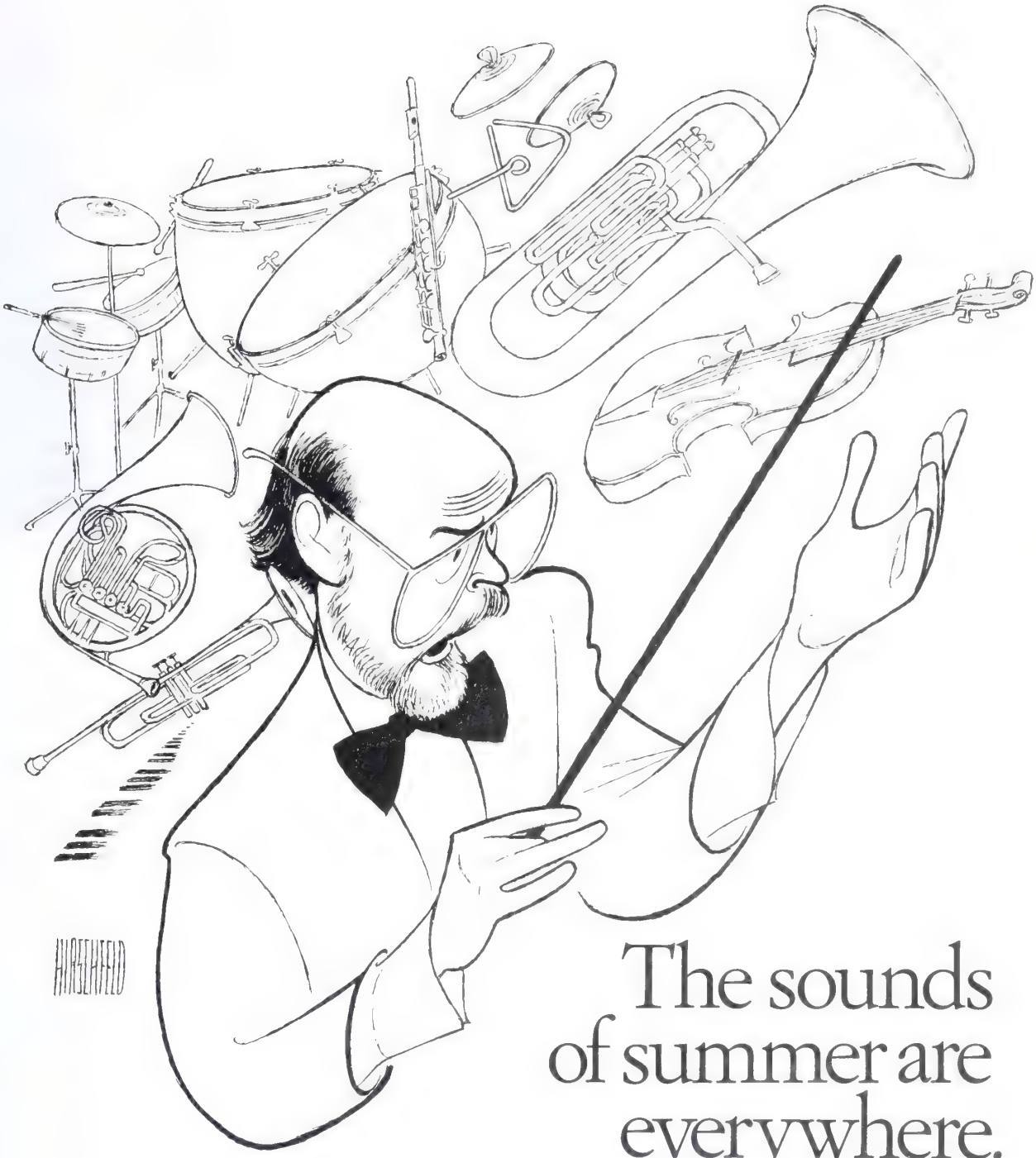
At this point, riverboats represe only 12.5% of his empire's $200 million i revenues. Banks and supermarket pr motions operations account for 65% says CFO Bernthaler. But Connelly betting that riverboats and related d velopments will comprise the bulk of h operations by the year 2000, yieldin revenues of around $750 million.

Whether it will all pan out is certainl debatable. Most big casino operators ar steering clear of waterway gaming fearing profits will be too tiny. Yet th field is fast becoming crowded wit smaller players. Says William H. Steve son, an entertainment market researc er: "Someone's going to make a ton c money, but there will be a shakeout. Connelly's most aggressive rival i Steamboat Casino River Cruises, a un of a Davenport barge and trucking firm Steamboat plans to spend $150 millio on eight river gaming projects, includin six in small ports near Davenport. "Any where there's riverboat gambling, we' be a player," says Steamboat Presider Douglas M. Kratz.

Connelly is going into Davenport i self. He and a partner have invested $6 million and are seeking financing for th other 43% of a $105 million gaming com plex. Connelly expects revenues of $5 million in its first year, beginning Apri 1991. That may be tough. But he's doin everything he can to improve his odds Last Christmas, for the first time in 2 years, Connelly took time off—for ele tive triple-bypass surgery. Two week later, he was back at work in Davenport

By Michael Schroeder in Pittsburg

digital



The sounds of summer are everywhere.

Digital Equipment Corporation and its employees are proud to sponsor EVENING AT POPS on public television. Consult your local listings for time and station.

© Digital Equipment Corporation 1990. The DIGITAL logo is a trademark of Digital Equipment Corporation.
© 1990 Al Hirschfeld. Drawing reproduced by special arrangement with Hirschfeld's exclusive representative, The Margo Feiden Galleries, New York

DON'T LOOK NOW, BUT ABC IS CLOSING IN ON NO. 1

Will the once-beleaguered network manage to overtake NBC?

Funny thing about ABC's top executives. They're not yet ready to jump up and down—even though the television network's morning and evening news programs have zoomed to No. 1 in the past year, and other shows, such as the groundbreaking *Twin Peaks*, drew critical raves. ABC honchos squirm visibly at the suggestion that ABC could knock off top-rated NBC in prime time next year. "The perception is way ahead of reality," warns Daniel B. Burke, chief executive of Capital Cities/ABC Inc. It's almost as if ABC's rise has been too tortuous to jinx with self-congratulation now.

Fact is, the competition is looking a bit wan. NBC Inc. hasn't produced any smash hits lately, and its hottest shows—especially *The Cosby Show*—are aging. Aside from the upstart Fox Broadcasting Inc. network, with its audacious *Married... With Children* and *The Simpsons*, ABC is pumping out the freshest stuff. Shows such as *Roseanne* and *The Wonder Years* helped ABC halve NBC's lead in the number of households watching during prime time last season. The two networks are still separated, however, by 1.5 million households—a gap a few ABC hits or NBC flops could bridge. That's the rub, of course. Just one runaway NBC hit next season could wipe out ABC's gains.

More important, though, is ABC's popularity among 18-to-49-year-olds, the folks that advertisers will shell out more bucks to reach. Last season, ABC's rating in these demographics held steady, while NBC's fell by 13%. The upshot? NBC's lead is quickly evaporating. "ABC has that audience locked up," says Betsy Frank, a media director at ad agency Saatchi & Saatchi Advertising. "NBC has one more year on top," she predicts.

Burke and Chairman Thomas S. Murphy have learned about the volatility of network TV the hard way. In the 4½ years since Cap Cities took over ABC, the network has swung in and out of profitability (chart). Now, it's on a roll. After Burke and Murphy lost $70 million in 1986, ABC's operating profits are expected to top $300 million on $2.5 billion in revenues this year.

'ADDICTIVE.' The ABC network accounts for half of Cap Cities' revenues and 20% of profits, so its leverage—either up or down—has a major effect. Even with the network, Cap Cities, a collection of TV and radio stations, trade magazines, and 80%-owned sports cable channel ESPN, has grown at a 13% annual pace, to $923 million on $5 billion in revenues last year. And its stock price, at $620 recently, has nearly tripled since the takeover. "I have never seen the equal of [Burke and Murphy]," says investor Warren E. Buffett, who owns a 17% stake and is a longtime pal and adviser.

BURKE AND MURPHY: PENNY-PINCHERS

Cap Cities' chiefs are dealmakers, but they're also TV broadcasters. Murphy hired Burke 30 years ago to run his tiny TV station in Albany, N.Y. They ended up with seven stations. Renowned for their penny-pinching management style, the two love owning TV stations—money machines whose profit margins can be pushed to nearly 50%. By comparison, network margins are, well, piddling. Even if you're lean, the high cost of programming squeezes margins into the single digits. So why own ABC? It was a logical way for Cap Cities to

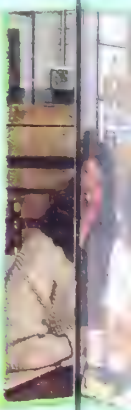
ABC'S TOP-RATED SHOWS

Rank	Program	Rating Among Adults, 18-49
1	ROSEANNE	17.3%*
2	AMERICA'S FUNNIEST HOME VIDEOS	16.8
6	THE WONDER YEARS	13.5
8	COACH	12.9
13	MONDAY NIGHT FOOTBALL	11.7
15	WHO'S THE BOSS?	11.4

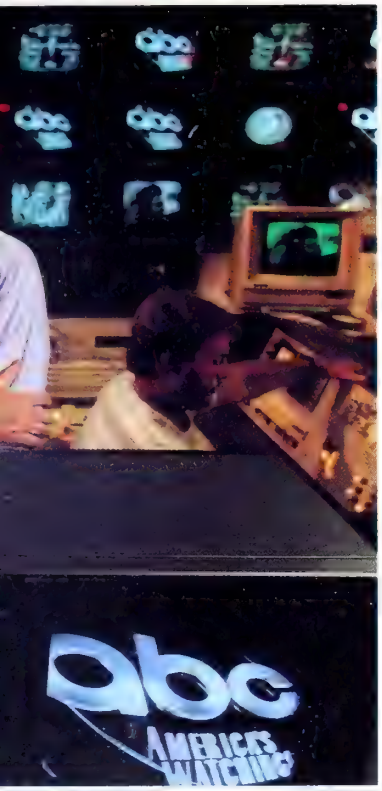
* Percentage of 92.1 million TV households

DATA: NIELSEN MEDIA RESEARCH, 9/18/89-4/15/90

THE WONDER YEARS



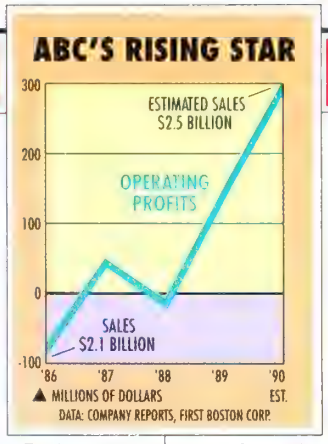
ROSEANNE



, explains Burke. "And it's really tive."

en before the $3.5 billion deal was ummated on Jan. 3, 1986, the educa- of Burke and Murphy had begun. knew the No. 3-rated network was d shape, but they hadn't counted on e-fall in ad sales. Advertisers were ting in droves to cable and other a. Longtime ABC hand Mark Manda- ad of sales, marketing, and affiliate ons, remembers delivering the bad : "The market had been so robust our forecasts were way off. We looking at a $200 million shortfall les." That year, ABC had its first ting loss since 1971.

rke and Murphy fixed the asting process so there'd be no more surprises. It was a commonsense move: They got rid of a bunch of financial planners and let sales do its own projections. Then they went after overhead. Some 1,200 heads rolled. Managers were told to scrimp on perks—limos and fancy hotels were out. As a reminder of the bad old days, Philip R. Beuth, a Cap Cities veteran, keeps a bill he found when he was dispatched in 1986 to run *Good Morning America*—"$26,000 for one black-and-white promo photo," he says, waving it in disbelief. Burke and Murphy tried to pare back the $120 million budgeted for affiliate compensation. As station managers, they hadn't relied on the payments they got for airing network shows. They backed down, however, when affiliates squawked about the across-the-board cut.



BETTING ON BRAINS. At a managers' meeting, held in Phoenix a month after the takeover, the tone was set. Their new bosses flashed numbers for all divisions on a screen and a rumble went through the crowd. This kind of openness was something new. Murphy, who was CEO until passing the title to Burke this summer, made his philosophy clear: He bets on brains, then gets out of the way.

Cap Cities inherited some problems it couldn't do much about. The costs for sports rights had gone through the roof, and ABC was stuck with a $309 million deal to broadcast the 1988 Winter Olympics in Calgary. Then there was the matter of *War and Remembrance*, the $110 million miniseries then under way. These ratings-grabbing shows would pay off in prestige but were sure money-losers. Murphy could have canceled the miniseries but didn't. It was a signal to his programmers and to Hollywood that Cap Cities wasn't going to skimp on product. And it was then that Burke, Murphy, and network President John B. Sias made perhaps their most important decision: They restructured programming away from the splashy, big-bucks stuff and funneled the resources to series programming.

The new managers begged film and miniseries chief Brandon Stoddard to take the top programming job, and he agreed to a three-year stint. "ABC was in real trouble," he recalls, "in third place and continuing to slide." Morale was terrible, and Hollywood types wouldn't return phone calls.

Stoddard was determined to develop TV series that didn't pander to the lowest common denominator. He preached respect for the audience and didn't meddle with producers. He attracted development deals with the likes of Steven Bochco, creator of *Hill Street Blues*. The result: a raft of quality shows such as *thirtysomething*, *Roseanne*, *The Wonder Years*, and *China Beach*. The ratings climb took time—and was marked by a few notable flops, such as *Dolly*, with Dolly Parton. At one point, in fact, *Forbes* magazine declared Stoddard "miscast in his job." But by the fall of 1988, ABC had moved into second place.

With the pipeline full, Stoddard handed his job over to Robert A. Iger a year ago. Although

TWIN PEAKS

CHINA BEACH

Iger is following the Stoddard blueprint, he is nonetheless an example of management's willingness to take a flyer. The 39-year-old spent 12 years as a sports programmer and negotiator of rights fees and did a seven-month stint in business affairs. He bristles at being tagged a bean counter, and his first skirmishes in entertainment show that he may have the instincts. He fought hard to keep *China Beach*, a well-written, well-acted show about women who served in Vietnam. And he also fought against headquarters' doubts about the weird and compelling *Twin Peaks*, the David Lynch series that has been lauded as groundbreaking television.

Ironically, a big part of the comeback was a retreat in sports. This has been particularly painful considering that under Roone P. Arledge, ABC had put television sports on the map. Since the network's goal was to be No. 1 in prime time, management decided to bid aggressively to keep the high-rated *Monday Night Football* when that contract was up for grabs earlier this year. But in anticipation of that, ABC opted out of the bidding for the 1992 and 1994 Olympics and left Major League Baseball to others.

Dennis D. Swanson, a hardnosed businessman who turned around the company's Chicago station before being handed sports, has had to put together a much-diminished schedule that features college football, Triple Crown horse racing, Indianapolis 500 car racing, golf, bowling, and the venerable *Wide World of Sports*. But after losing buckets of money in the past several years, sports broke even in 1989. "We're not a profit center," says Swanson, "but we're not a financial liability, either."

GOOD NEWS. Meanwhile, an already profitable news franchise got even better. Under Arledge, ABC already had the most news programs on network TV. Years ago, he created David Brinkley's Sunday talk show, *20/20*, and *Nightline*. The new *PrimeTime Live* is struggling but will get another year to prove itself. *World News Tonight with Peter Jennings* zipped past CBS's Dan Rather last year, to No. 1 in the evening. And in the morning, ABC's *Good Morning America* had been steadily gaining on NBC's *Today Show*, when the Jane Pauley-Deborah Norville fiasco pushed ABC in front in January.

CEO Burke says that Cap Cities had no big plan for ABC when he and Murphy stepped in. He explains it was simply a matter of tapping the best talent, setting financial goals for them—then letting them do their jobs. "This is not rocket science," says Burke. That's true. But it's the equation that could put ABC over the top.

By Susan Duffy in New York

Marketing

MAGAZINES

ELBOW TO ELBOW: LAST YEAR, 584 NEW PERIODICALS WERE INTRODUCED

MAGAZINE PUBLISHERS PUT ON THEIR THINKING CAPS

The downturn is forcing them to find new ad-sales methods

A year ago, the magazine business was like a gambler with a hot hand. Advertising revenues were approaching $7 billion and growing at a healthy 12% annual rate. New magazines were sprouting on newsstands at a rate of more than one a day. And publishers expected 1990 to be, if not a banner year, at least a respectable one.

Now, six months into 1990, growth in ad revenue—which accounts for more than half the total gross income in the business—has slowed to an annual rate of just 1.3%. And hardly a week goes by without news of another magazine shutting down or being put on the block (table). "We've never been busier," says John J. Veronis, chairman of Veronis Suhler & Associates, a firm that brokers the sale of magazines.

SMALLER PIE. Downturns in the industry are hardly new. Magazines are a cyclical business in which revenues are often tied closely to the earnings prospects of advertisers. With 584 new magazines launched in 1989—more than twice the number introduced in 1985—it was inevitable that the business cycle would weed out the weaker titles. Meanwhile, the public appetite for magazines hasn't slackened at all. Last year, magazines collectively sold almost 370 million copies per issue, up from 323 million in 1985.

But publishers detect forces at worl that may be permanently overhauling the way magazines attract advertising "The pie has shrunk, and the amount o people trying to get a piece of it keep growing," says David Lehmkuhl, a mag azine consultant. The electronic medi competing with magazines—cable televi sion, syndicated television, even commer cials played inside supermarkets—ar more ubiquitous than ever.

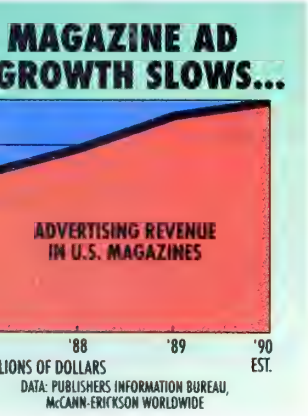
And some advertisers may be spend ing less for a long time. For companie such as RJR Nabisco Inc. and Fruit o the Loom Inc., the cost of paying dow merger-related debt often cuts into mar keting budgets. Moreover, the wave o takeovers has reduced the number o advertisers. The upshot, says John Mac Carter, editor-in-chief of *Good House keeping* and director of new magazin development at Hearst Corp., is tha "advertisers are saying: 'How can w get more for our money?' "

To deliver more and get an edge in th battle for elusive ad dollars, publisher are devising a flurry of innovations fo their magazines and coming up with lot of ideas for spin-offs. One hot strateg for general-interest titles is to slice reac erships into discrete chunks and attrac advertisers who want to reach a specia ized audience. IBM and General Motor

. are exploring innovations that d allow them to target ads in *Time Newsweek*. With special binding nology, these periodicals can insert in, say, only copies mailed to afflu- etirees.

her publishers are trying to reach audiences with more specialized azines that still capitalize on the d names of their flagship titles: NESS WEEK recently published the issue of *Assets*, a personal-finance lifestyle magazine aimed at affluent le. And *Forbes* is coming out with es FYI, a lifestyle magazine.

E SKEPTICS. Such publishers as Ru- Murdoch's News Corp. are also try- o win business by brokering multi- ia deals that include their own azines. *U. S. News & World Report* GM a package that included a series rticles on Congressional Medal of or winners paired with ads for its k division. *U. S. News* also helped uce a syndicated TV program on the



...AND THE BUSINESS IS IN A SHAKEOUT

Title	Publisher	Status
7 DAYS	Stern Publications	Closed May 1990
MANHATTAN INC.	Metrocorp	Merging with *M*
WOMAN'S DAY	Diamandis Communications	For sale
WOMAN	Conde Nast	For sale
TAXI, MODEL	Family Media	Converting to controlled circulation

DATA: COMPANY REPORTS

e subject, which GM sponsored. Mer- n Corp., which publishes *Better es & Gardens*, has a deal with t General Food Group that includes e displays and a cookbook.

hile Kraft, IBM, and other big adver- s seem to be happy with these ef- , some marketing executives ques- their effectiveness. For one thing, new technology translates into high- ates. That leaves some clients won- g if there's a better way to go. gazines are being used as targeting cles," says Philip Guarascio, GM's ex- ive director for advertising services. there are other surrogates, like ca- that do the job as well or better."

me publishing executives also wor- bout the long-term effect of dis- ting, which has become rampant in tightened ad market. Magazines come up with novel ways to cut s. Some publishers now pool their s in packages that offer advertisers ntives to boost their ad spending. ugh its Max-Plan, Time Warner Inc. s credits to clients who advertise e in its magazines than the year be- fore; they can convert these credits into space in any Time title. Even so, most of Time's magazines are down in ad pages. A longer-run concern is that by linking different titles, such plans dilute the editorial identity of magazines, turning them into commodities in which demographic reach and low rates—not editorial personality—matter most.

Other magazine executives say this fear is exaggerated. Reginald K. Brack Jr., chairman of Time's magazine group, argues that vigilant editors can safeguard the identities of Time publications. And *Good Housekeeping*'s Carter is sanguine that the consumer magazine business, where margins can run as high as 20%, will right itself after the current shakeout. He and others note that the drop in ad pages is largely the result of a downturn in such key categories as cars and computers.

At the same time, magazines are not the only segment of the media business that's hurting. Ad spending in all U. S. media will grow just 5.3% in 1990, according to forecaster Robert J. Coen of McCann-Erickson Worldwide. That's down from 7.7% in 1988.

Even when auto and computer advertising picks up, however, magazines will find it tougher than in the past to boost revenue and widen margins. One reason: Tobacco advertising, a mainstay category for magazines, should continue to erode as cigarette makers remain under pressure from activists and lawmakers. And as smoking becomes more of a blue-collar habit, cigarette merchants will be less inclined to promote their products in upscale magazines. The result: Publishers will probably keep hunting for new ways to cut costs. They may also boost both newsstand and subscription prices, forcing readers to provide an even larger share of revenues.

As publishers sort their way through the current downturn, they are sure to emerge more nimble. The challenge is to get through this rough patch without eroding the editorial franchises that attract advertisers in the first place.

By Mark Landler in New York

1	Exxon
2	General Motors
3	Mobil
4	Ford Motor
5	IBM
6	Texaco
7	E I du Pont
8	Standard Oil (Ind)
9	Standard Oil of Cal
10	General Electric
11	Gulf Oil
12	Atlantic Richfield
13	Shell Oil
14	Occidental Petroleum
15	U S Steel
16	Phillips Petroleum
17	Sun

27 million Americans can't read. And guess who pays the price.

Every year, functional illiteracy costs American business billions.

But your company can fight back...by joining your local community's fight against illiteracy. Call the Coalition for Literacy at toll-free **1-800-228-8813** and find out how.

You may find it's the greatest cost-saving measure your company has ever taken.

A literate America is a good investment.

Ad Council Coalition for Literacy

The Frequent Traveler

A Special Advertising Section in Business Week.

Where 7.1* million on-the-go business travelers all come together -- the largest, most affluent travel marketplace of any general business magazine.

Every year Business Week's top-management readers enjoy informative and entertaining Special Advertising Travel Sections edited by Steve Birnbaum, America's foremost travel writer and commentator. The entire section, with ads included, will appear again in ASTA Agency Management magazine -- a bonus audience of 30,000 travel professionals.

All at regular Business Week rates!

Plan to be there: **Issue Date:** September 24, 1990
Closing Date: August 13, 1990

Issue Date: November 26, 1990
Closing Date: October 15, 1990

Please call: John Holden, Market Manager,
Travel Advertising 212-512-6394

*Source: SMRB 1989 B/N Estimate

BusinessWeek
THERE IS NO SECOND PLACE.

BusinessWeek

The New Business Week Mutual Fund Scoreboard Diskettes

pare the performance of over 830 ty and 690 fixed income mutual s at the touch of a key!

ou can use the enormous r of your IBM or compatible PC ect, rate and compare virtually mutual fund on the market — ntire spectrum of over 1,500 covered by Business Week's l Mutual Fund Scoreboard.

simple menu commands, the l Fund Scoreboard Diskettes enable select and display the data *you* want in hat that *you* can use to make better buy/sell ons. For example, you can instantaneously ll no-load equity funds whose objective is ssive growth, which outperformed the S&P ver the past 5 years and have assets of less $500 million.

25 key performance factors and data fields ach fund.

usiness Week Mutual Fund Scoreboard Diskettes offer you all formation you need to better decisions ing a beta factor for vel and the exclusive ess Week Rating of l fund performance ed for risk and sales es.

sports easily to s 1-2-3 or other vare.

ugh the Scoreboard tes include their own ful data management am, all data is easily rted into Lotus 1-2-3 or files so you can take tage of your favorite dsheet, word proces- nd graphics software.

Used to stay up to date by Financial Planners, Investors, and Brokers!

Order your own subscription now to these Fixed Income and Equity Diskettes!

Each individual diskette costs $69.95, but you can subscribe to monthly or quarterly editions of either version at great savings. Even better, if you purchase a subscription to both the Equity and Fixed Income Diskettes, you'll save even more.

So order now by calling **Toll Free 1-800-553 3575** or send the coupon.

Special Features:

- Simple menu commands
- No additional software required
- Supports multiple search and sort criteria on over 25 information fields
- Fast searches and lookups. The entire database and data management program reside in memory
- Data transports easily to Lotus 1-2-3 and other popular software
- Quarterly or monthly updates to keep your data current
- Requires an IBM-PC or compatible with 256K of memory and DOS 21 or higher
- Integrated for ease of use with Fund Master TC from Time Trend Software and Centerpiece Portfolio Management Software from Performance Technologies
- Source data supplied by Morningstar, Inc.

Business Week Mutual Fund Scoreboard Diskettes

Yes, please enter my subscription immediately as checked below

Equity Funds only	Fixed Income Funds only	Both Editions
Monthly @ $299.00 yr	Monthly @ $299.00 yr	Monthly @ $399.00 yr
Quarterly @ $199.00 yr	Quarterly @ $199.00 yr	Quarterly @ $299.00 yr
Single Diskette $69.95	Single Diskette $69.95	Single Diskette $139.95
3½" Diskette	3½" Diskette	3½" Diskette
5¼" Diskette	5¼" Diskette	5¼" Diskette

☐ Please send me more information (New Jersey Residents, please add 6% Tax)

Name_____ Daytime Phone_____

Title_____ Company_____

Address_____

City_____ State_____ Zip_____

☐ Payment enclosed (Check payable to BusinessWeek Mutual Fund Scoreboard.)

☐ Bill my company (Letterhead or Purchase Order required)

☐ Charge my ☐ Mastercard ☐ Visa ☐ Amex ☐ Diners Club

Card No._____

Expiration Date_____ Signature_____

Mail or fax this coupon to **BusinessWeek** Mutual Fund Scoreboard Diskette, Dept HB11, 185 Bridge Plaza North, Suite 302, Fort Lee, New Jersey 07024, U.S.A. Tel. (201) 585 1889 Fax: (201) 461-9808 OR Suite C, 22nd Floor, Yiko Industrial Building, 10 Ka Yip Street, Chaiwan HONG KONG. Tel. 852 5 8978447 Fax. 852 5 598246 OR 25 Castle Street, High Wycombe Bucks. HP13 6RU, ENGLAND Tel. 44-494-25021 Fax. 44-494-465451

McGraw Hill

EDITED BY AMY DUNKIN

Outdoors

AH, WILDERNESS—AND WITHIN REACH

America boasts some of the world's most enchanting wilderness. But much of it is too remote for the casual hiker to enjoy. The three spots we visited, however—all islands—require some roughing it, yet all are within reach of the most timid tenderfoot.

A PEACEABLE KINGDOM IN LAKE SUPERIOR

In Michigan's Isle Royale National Park, moose easily outnumber humans. Some 1,200 of these gangly beasts inhabit this 210-square-mile wilderness region in Lake Superior. During one recent trip, I awoke to the sound of hooves padding past the tent. In the morning, I stumbled into the dawn to discover a mother with twin moose calves bedded down not more than 30 feet away.

Moose-watching isn't the island's only attraction. Muskrat, beaver, and fox are also easy to spot. And it's an angler's paradise. Northern pike, walleye, perch, trout, and the native Lake Desor whitefish ply the island's coves and its nearly two dozen inland lakes. Equally prolific for nature lovers are the bogs, birch forests, and wind-blown ridgetops of the park.

RATTLER-FREE. If you don't count its voracious mosquitoes, Isle Royale is strictly a gentleman's wilderness—no bears, venomous snakes, or pesky raccoons. One caution: Boil or filter all drinking water to kill the parasitic hydatid tapeworm. Also, bring raingear and warm clothes. Even in summer, weather can be iffy, with nighttime temperatures dropping as low as 40F.

There are three ways to explore the park: Hike the 170 miles of trails, canoe the inland lakes, or boat to one of many natural harbors. Most visitors come equipped to camp out. But if roughing it doesn't appeal, the Rock Harbor Lodge (906 337-4993) offers more civilized accommodations. Prices are $145 a night for two, including meals.

Ferries for the island leave from Michigan's Upper Peninsula or from Grand Portage, Minn. Fares run $50 to $74 round-trip. Alternatively, seaplane service is $120. The ferries, which operate from May to October, will tote your

e for $12 to $15 each Or you can rent them at k Harbor for $14.50 a day. the park office in ghton, Mich. (906 482-) for further informa-

David Woodruff

AY FROM IT ALL IEW YORK

staking out your own is-and sounds like fun, try Lower Saranac Lake in York's 6.5-million-acre ondack State Park. Some miles north of New York Lower Saranac is dotted 21 mostly uninhabited is-s. Rent a canoe or motor-on the mainland, scout the territory, and drive tent pegs into a piece of h that hasn't changed n since the Algonquin and awk Indians roamed the on 200 years ago.

ecently, six of us rented a rboat for $35, loaded our into it, and set off for of the smaller islands for eek's stay. Once un-ed, we took the boat back exchanged it for a canoe cost just $10 a day. We no one else all week ex-

the park ranger, who e ashore each day to col-the $8.50 fee.

e cerulean lake, stretch-5½ miles, offered a cool ite after hikes along the ot cliffs above our camp-In the afternoons, we ght bass and northern The evening's tranquil-was punctuated only by d blowing through the and tamarack trees.

BOAT. There are no ameni-on the islands, so pack ything you'll need for stay. When we ran out e, it meant canoeing half our back to civilization.

The islands have 32 campsites, and we had no problem finding one without a reservation. But for $6, you can reserve a site by calling 800 456-2267. The state ranger's cabin at 518 891-4590 also provides camping information. And for advice on boat rentals, outfitters, and local activities, just telephone the Saranac Lake Chamber of Commerce (518 891-1990).

Jude T. Hayes

THE WILD WORLD OFF THE WEST COAST

Off the Southern California coast, the Channel Islands are a windswept world of teeming wildlife, strange plants, jagged cliffs, and rugged mountains. This five-island national park, though reachable by sea and air, receives few visitors.

The most accessible island is Anacapa, a 45-minute boat trip from Oxnard harbor, about 60 miles west of Los Angeles. Island Packers (805 642-7688) will get you there and back for $34. On a recent half-day visit, a guide led us along cliff tops covered with gull and cormorant nests. Far below, barking sea lions lolled about.

CALICHE FOREST. For more extensive hiking, take a two-hour trip to Santa Cruz. Its upland valley is surrounded by two coastal mountain ranges. Hikers must travel with a conservancy group. Call for schedules (Island Packers).

For a real adventure, take a two-night trip to San Miguel. Fifty-six miles from Ventura harbor, desolate San Miguel is buffeted by wind and heavy seas. It is one of the few places on earth you can see a caliche forest, an eerie collection of fossilized plants.

Boats to San Miguel leave at 1 a.m. and arrive by dawn. Bring a sleeping bag and warm clothes. At $195 with meals, the trip is a bargain. With boats returning to the mainland by 6 p.m., you can be back on the freeway by nightfall.

Eric Schine

Stereo

THE EARLY WORD ON DAT: STUNNING

KOENIGSBERG: GREATER RANGE THAN REGULAR TAPES—AND NO HISS

With Sony's late June introduction of the first digital-audio-tape recorders in the U. S., it's now possible to make studio-quality copies of your favorite compact disks. And as DAT machines drop in price, the technology should become standard for music lovers who want tapes for their cars, country homes, or—eventually—portable Walkman-type players.

At $950, Sony's DTC-75ES offers sound that is far superior to that of conventional cassettes. And although music publishers are still nervous about the implications of high-quality duplication of their copyrighted material, a number of record companies are likely to follow the lead of Sony's CBS Records, which is releasing some of its best-selling classical recordings on DAT. "Everything about the performance is better," says Elliot Koenigsberg, a salesman at Harvey Electronics in New York. "There's no tape hiss, and you have greater frequency response."

NO FLIPPING. There are other reasons to celebrate DAT besides sound quality. The cassettes, about half the size of the familiar audio kind, use a loading and playback mechanism akin to that of a video-cassette tape. That means minimal wear and tear, as the tape is fully encased in its cartridge. Also, there's no need to flip the tape—you get two hours of uninterrupted recording and playback. And digital technology permits rapid-fire cuing of favorite tracks.

For now, the scarcity of prerecorded tapes means audiophiles will use DAT decks primarily for copying CDs. That should change within the year, though, as more recorded material is released. Already, along with Sony/CBS, jazz specialty label GRP is issuing some of its albums on DAT tapes at about $20 a pop. Blank tapes for recording cost about $12—a price that should also drop as the technology spreads.

Sony won't have the market to itself for long. Among others, Casio, JVC, and Denon plan to release DAT machines in the next few months. If history repeats, the burgeoning competition and high initial demand will send prices plummeting. Just as the first CD players cost upwards of $1,000 and quality machines can now be had for $300 or so, some discounters are offering a brand-new Sony DAT recorder—the $900 DTC-700—for $799.

Tim Smart

(L TO R) PHOTOGRAPHS BY WALTER HOUK KEN • FRBS

BUFFALO

Hot Spot For Business

Buffalo is warming up to a new business boom!

Make Buffalo your business. Speak to readers all over the globe who will respond to Buffalo's surprising sizzle. Make plans to appear in the pages of the Special Advertising Section *Buffalo: The Hot Spot for Business.*

For more information, please call:
D. David Johnson, II, Account Manager
at 203-968-7141
or
Barbara J. Daly, Marketing Manager
at 212-512-6664

BusinessWeek
There is no second place.

s interest in investing abroad grows, so does umber of foreign stocks ing up on U. S. shores merican depositary re- s (ADRs). About 825 of dollar-denominated re- s for shares of foreign anies now trade in U. S. kets. Volume among the r so listed on the major stock exchanges is at ll-time high, says Bank ew York, a leading ADR sitary.

Y ENTREE. In recent s, many overseas mar- have grown faster than equity markets, and are a convenient way t into that action. Since re bought, sold, and pay lends in dollars, you have to worry about erting foreign currency. hile there are ADRs from untries, the political and omic changes sweeping pe make it home to of the hottest plays. en Nagourney, chief in- ational strategist for

Smart Money

INVESTORS LOOKING ABROAD HEAT UP THE ACTION IN ADRs

Shearson Lehman Hutton, likes such household names as French cosmetics maker L'Oréal and Swiss food giant Nestlé. Many others favor Italy's Fiat and Olivetti. And Rein van der Does of Smith Barney, Harris Upham prefers West Germany's Mannesmann, an engineering group investing heavily in East Germany. He also is high on Asea, part of the Swedish-Swiss ABB Asea Brown Boveri group, a world leader in power-generation gear. At $139, Asea's ADRs are up 21% so far this year.

Europe's cellular-phone boom has some stock-pickers recommending Britain's Racal Telecom and Racal Electronics. With a price-earnings ratio of 17, based on 1991 projected earnings of $3.80, "Racal Telecom is much more attractively priced than its American counterparts," says James Engle, chief investment officer at Wood, Struthers & Winthrop, the investment-management unit of Donaldson, Lufkin & Jenrette Securities. "With ADRs, the price is often determined in the home market, and U. K. investors don't have as much faith in the future of cellular phones as U. S. investors do." He says one way to play Telecom is to buy the less-expensive ADRs of Racal Electronics, which owns shares in Racal Telecom.

ADRs leave you at the mercy of foreign economies and currencies, and information can be scarce. "Still, you're probably better off buying ADRs than buying direct," says Engle. Their accessibility makes them one of the easiest ways to participate in the global market. *Suzanne Woolley*

THE YEAR'S HOTTEST ADRS

	Price 7/10/90	Year-to-date change Percent
TELEFONOS DE MEXICO	1⅝	93%
NORSK DATA	8 1/16	77
NEW ZEALAND PETROLEUM	1	60
L.M. ERICSSON	229¼	60
KYOCERA	117⅛	56
S&P 500	**356.49**	**1.2**

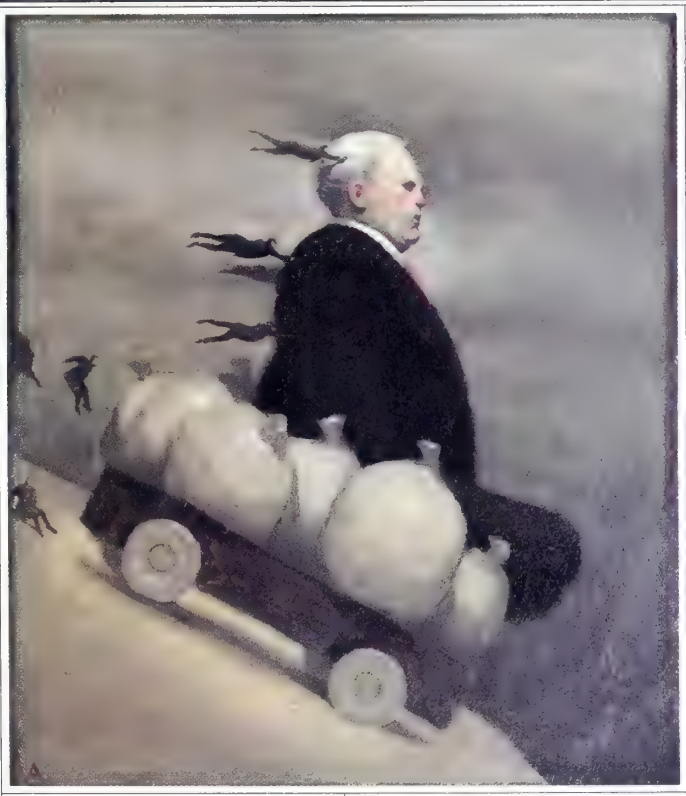
DATA: BRIDGE INFORMATION SYSTEMS INC.

Finances

HEN YOUR NSION NEEDS RESCUE PLAN

he recent Supreme Court decision on LTV's pension obligations the question of how your pension is protected ur company files for ruptcy.

8,000 steelworkers dis- ed after LTV filed for ter 11 in 1986, the feder- ension Benefit Guaranty (PBGC) covers most pay- s from the qualified por- of a company's pension But payments such as 400 a month LTV offered early retirement don't fy for PBGC coverage. unately, the Supreme t upheld a PBGC ruling the company had illegally nated its plan and was ated to continue fully ensating retirees. But if your company looks as if it's headed for hard times, you may want to take a few steps to protect yourself.

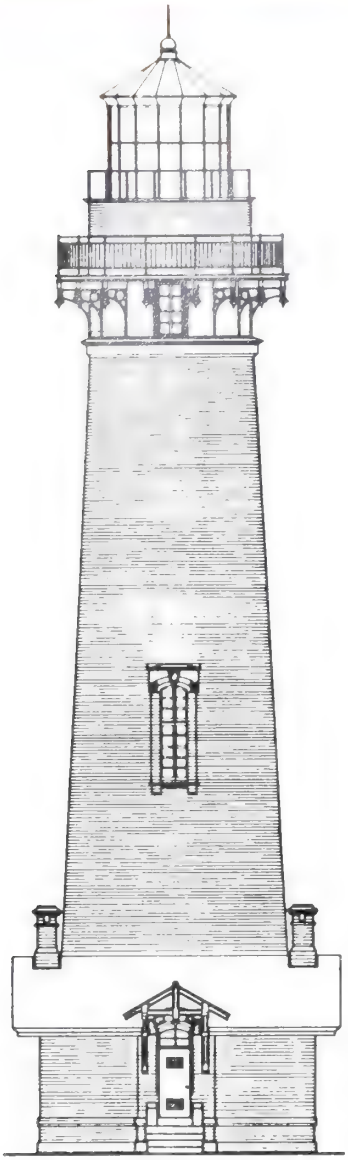


DANIEL ADEL

Think about maximizing contributions to your 401(k) savings plan—but in securities other than your company's stocks or bonds. And try asking your company to buy an annuity instead of setting supplemental retirement money aside in irrevocable trusts. Creditors can attach the trust assets in the event of bankruptcy, so the funds would not be used to pay retirees.

SECURITY FIRST. If you're jumping to a new company, be careful about how you arrange your pension. Recruiting companies often try to make up for pension benefits you forfeit by promising to supplement your retirement benefits. But these extra payments, sometimes called supplemental executive retirement plans, or SERPs, can disappear in a bankruptcy because they are financed out of earnings, unlike money set aside in a qualified plan.

You might also ask your new employer for an up-front payment instead of a promise to pay upon retirement. The taxes may be stiff on such a lump sum, but at least you will have the money in hand in case the company loses its footing. *Bruce Hager*



PIGEON POINT LIGHTHOUSE SAN MATEO COUNTY CA

PRESERVATION
PLAN ON IT

Planning on restoring a house, saving a landmark, reviving your neighborhood?

Gain a wealth of experience and help preserve our historic and architectural heritage. Join the National Trust for Historic Preservation.

Make preservation a blueprint for the future.

Write:

National Trust
for Historic Preservation
Department PA
1785 Massachusetts Ave., N.W.
Washington, D.C. 20036

Index to Companies

This index gives the starting page for a story or feature with a significant reference to a company. Most subsidiaries are indexed under their own names. Companies listed only in tables are not included.

A

ABB Asea Brown Boveri **64, 68**
Aetna **9**
Alsthom-Jeumont **64**
American Airlines **9, 31**
American Express Bank **46**
Andrews Group **57**
Apple **36**
Application Configured Computers **30**

B

B. Altman's **28**
Barclays de Zoete Wedd **54**
BellSouth **48**
Blackstone Capital **29**
Bloomingdale's **28**
Boeing **40, 70**
Boenning & Scattergood **57**
Bonwit Teller **28**
Bristol-Myers Squibb **69**
British & Commonwealth Holdings **42**
Brooks Drug **57**

C

Caltex Petroleum **46**
Capital Cities/ABC **74**
Carrefour **28**
Casio **81**
CBS **48, 74, 81**
Chase Manhattan Bank **70**
Chrysler **70**
Coca-Cola **36**
Cogentrix **46**
Coloroll **42**
Combustion Engineering **64**
Compaq Computer **41**
Conductus **68**
Crum & Forster **62**
CS First Boston **54**

D

Dean Witter Reynolds **54**
Denon **81**
Digital Equipment **31, 41**
Disney (Walt) **36, 54**
Douglas Aircraft **70**
Drexel Burnham Lambert **58**
Dynascan **51**

E

Eppler, Guerin & Turner **54**
Ernst & Young **24**

F

Federal Express **31**
Federated Department Stores **28**
Fiat **83**
Filofax **42**
Finmeccanica **64**
First Union **54**
Ford **46, 70**
Fox Broadcasting **74**
Fruit of the Loom **76**

G

Galeries Lafayette **28**
Genentech **54**
General Dynamics **40**
General Electric **31, 46, 64**
General Magic **36**
GM **70, 76**
Goldman, Sachs **54**
Greenfield & Chimicles **57**
Groupe Bull **41**
GRP **81**
Gruntal **57**
GTE **48**

H

Hana Biologics **69**
Harvey Electronics **81**
Hearst **76**
Hewlett-Packard **41**
Hoffmann-La Roche **54**
Horn & Hardart **60**

I

IBM **41, 48, 70, 76**
In-Flight Phone **48**
Intellicall **36**
Interbank **46**
Isotechnologies **67**

J

Janney Montgomery Scott **54, 56**
JEC Enterprises **72**
Jenkens & Gilchrist **24**
JVC **81**

K

Kraft General Food **76**
Kuhns Brothers & Laidlaw **58**

L

L'Oréal **83**
Lo-Jack **48**
Lockheed **40, 70**
LTV **83**

M

Macy's **28**
Manor Care **29**
Manpower **60**
Marubeni **46**
Marvel Entertainment Group **57**
McCaw Cellular Communications **51**
McDonnell Douglas **30**
Meredith **76**
Merry-Go-Round **9**
MGM/UA **14**
Microelectronics & Computer Technology **31**
Microsoft **70**
Millicom **48**
Mitsubishi **64**
Morgan Guaranty **29**
Motorola **31, 48**

N

National Health Laboratories **57**
NBC **74**
Nestlé **9, 83**
NetFRAME **62**
New World Entertainment **57**
News Corp. **76**
Next **42**

O

Olivetti **41, 83**

P

PaineWebber **54**
Philips **41**
Pinkerton's **60**
Piper, Jaffray & Hopwood **54**
Price Waterhouse **24**
Prime **29**
Printemps **28**

Q

Quality Inns **29**

R

Racal **83**
Raymond James Financial **54**
Revlon **57**
Right Management Consultants **60**
RJR Nabisco **76**

S

Saatchi & Saatchi **42**
Saks Fifth Avenue **28**
Salomon Brothers **54**
Sandvik **64**
Schneider **64**
Servico **29**
Shearson Lehman Hutton **54**
Siemens **41, 64**
Silk Greenhouse **54**
Sock Shop International **4**
Sony **36, 81**
Stephens **54**
Sun Microsystems **62**
Superconductor Technologies **68**
SupeRx **57**

T

Time Warner **76**
Toshiba **41**

U

UAL **9**
United Parcel Service **48**
USI Far East **46**
USX **36**

V

Vivigen **67**
VMS Realty **29, 62**

W

Washington Post **48**
Wertheim Schroeder **54**
Westinghouse **64**
Whirlpool **32**
WR Lazard **58**

X

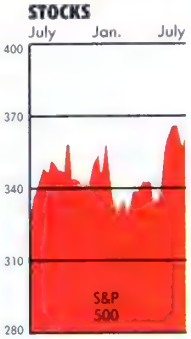
Xerox **62**

vestment Figures of the Week

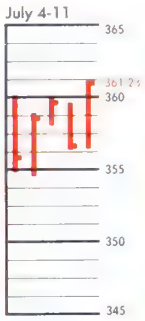
ENTARY

ising week in the financial
: The Dow Jones industrial
climbed nearly 42 points
11, to close at 2,932.7—
air under its all-time high.
ks helped elevate the mar-
y were boosted by news
PEC oil ministers had
to maintain current pro-
ceilings until prices rise.
ling volume remained lack-
lespite the market's rise.
care stocks and biotechnol-
tual funds continued to
list of gainers.

STOCKS

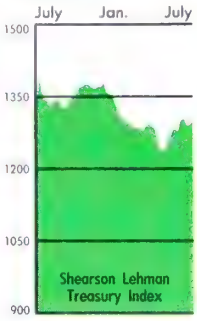


52-week change
+9.5%

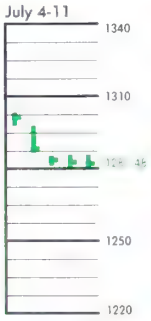


1-week change
+0.3%

BONDS

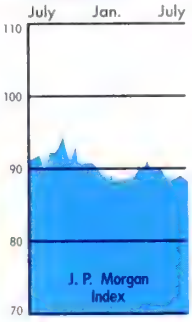


52-week change
-5.5%

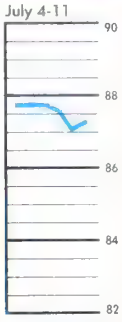


1-week change
-1.6%

THE DOLLAR



52-week change
-4.8%



1-week change
-0.6%

RKET ANALYSIS

TOCKS	Latest	% change Week	52-week
ONES INDUSTRIALS	2932.7	0.7	15.8
MPANIES (Russell 1000)	187.8	0.3	7.6
COMPANIES (Russell 2000)	168.7	–0.2	–1.9
MPANIES (Russell 3000)	200.0	0.2	6.9

GN STOCKS	Latest	% change (local currency) Week	52-week
N (FINANCIAL TIMES 100)	2360.5	–0.5	4.6
(NIKKEI INDEX)	32,294.2	–0.4	–4.2
TO (TSE COMPOSITE)	3544.5	–0.4	–7.6

FUNDAMENTALS	Latest	Week ago	Year ago
90-DAY TREASURY BILL YIELD	8.1%	8.0%	8.0%
30-YEAR TREASURY BOND YIELD	8.6%	8.4%	8.0%
S&P 500 DIVIDEND YIELD	3.3%	2.9%	3.4%
S&P 500 PRICE/EARNINGS RATIO	16.5	16.6	12.9

TECHNICAL INDICATORS	Latest	Week ago	Reading
S&P 500 26-week moving average	343.6	343.3	Positive
Stocks above 26-week moving average	45.1%	46.9%	Neutral
Speculative sentiment: Put/call ratio	0.31	0.32	Neutral
Insider sentiment: Vickers sell/buy ratio	1.06	1.06	Positive

USTRY GROUPS

BRIDGE INFORMATION SYSTEMS INC.

WEEK LEADERS	% change 4-week	52-week	Strongest stock in group	% change 4-week	52-week	Price
TH CARE SERVICES	11.3	38.7	BEVERLY ENTERPRISES	22.0	–24.2	6¼
ITAL MANAGEMENT	9.0	23.0	COMMUNITY PSYCHIATRIC CENTERS	13.9	–11.5	28¾
S	7.8	45.4	NIKE	15.6	99.4	87¼
CCO	7.7	28.9	PHILIP MORRIS	8.8	36.0	48⅛
SEHOLD PRODUCTS	7.3	43.3	COLGATE PALMOLIVE	9.3	32.6	69⅛

WEEK LAGGARDS	% change 4-week	52-week	Weakest stock in group	% change 4-week	52-week	Price
OR REGIONAL BANKS	–12.8	–23.4	SHAWMUT NATIONAL	–28.8	–62.5	10½
KING	–12.1	–12.3	CONSOLIDATED FREIGHTWAYS	–26.8	–54.4	13
RMARKET AUTO PARTS	–11.3	–25.0	GOODYEAR TIRE & RUBBER	–16.8	–47.8	28⅜
RE TIME	–11.1	–37.6	HANDLEMAN	–18.5	–32.1	13¼
EBUILDING	–10.8	–25.0	KAUFMAN & BROAD	–13.9	–34.0	11⅝

TUAL FUNDS

MORNINGSTAR INC.

RS

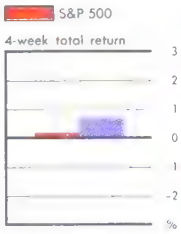
ek total return	%
LITY SELECT BIOTECHNOLOGY	9.8
LITY SELECT MEDICAL DELIVERY	8.3
NTIETH CENTURY GIFTRUST INVESTORS	8.1

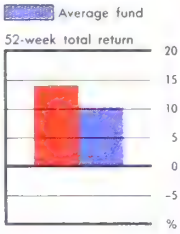
k total return	%
ITY STRATEGIES	57.8
LITY SELECT BIOTECHNOLOGY	55.7
ANCIAL STRATEGIC HEALTH SCIENCES	53.6

LAGGARDS

Four-week total return	%
FIDELITY SELECT SAVINGS & LOAN	–7.9
FIDELITY SELECT REGIONAL BANKS	–7.9
FIDELITY SELECT FINANCIAL SERVICES	–6.9

52-week total return	%
NATIONAL REAL ESTATE INCOME	–18.9
STRATEGIC INVESTMENTS	–16.1
FIDELITY SELECT BROADCAST & MEDIA	–16.1





LATIVE PORTFOLIOS

DATA RESOURCES INC.

amounts
ent the present
of $10,000
ed one year
each portfolio

ages indicate
y total returns

U. S. stocks	Money market fund	Foreign stocks	Treasury bonds	Gold
$10,994	$10,714	$10,474	$10,212	$9,230
–0.85%	+0.15%	+0.62%	–1.61%	–2.21%

on this page are as of market close Wednesday, July 11, 1990, unless otherwise indicated. July 10. Mutual fund returns are as of July 6. Relative portfolios are valued as of July 10. A more groups include S&P 500 companies only; performance and share prices are as of market close detailed explanation of this page is available on request.

WHY SHOULD AIRWAVES BE FREE AS AIR?

Use of wireless communications is taking off at a breathtaking clip. Cellular phones, pagers, and other devices that rely on the airwaves for their lifeblood are now almost indispensable for the executive on the move. At home, cordless phones, garage-door openers, and wireless intercoms to monitor nurseries are equally ubiquitous.

But these new services are putting a squeeze on one of the nation's most precious—and least appreciated—natural resources: the electromagnetic spectrum. New services are finding it harder and harder to get space on the airwaves. If the government doesn't manage the spectrum better, innovation will be stifled, and the U. S. will lose its competitive edge in a field where it remains a technological leader. Countries such as Britain have been able to move ahead on such services as personal communications networks—an inexpensive version of cellular phones—largely because they have been able to make room for them on the airwaves. The U. S. is just starting to search for a niche for the service.

Current users of the spectrum, from broadcasters and ham radio operators to police and fire departments, will resist major changes in the way the Federal Communications Commission doles out frequencies. They have billions at stake. But there are ways to improve use of the airwaves without causing too much disruption.

For one, the FCC could bring free-market forces to bear by auctioning off new parts of the airwaves as they become available. If users paid for frequencies—they don't now—they would have an incentive to be more efficient. And the revenues could help shrink the federal deficit. The FCC should also continue to encourage technologies that can share spectrum space with other services.

Injecting free-market ideas into management of the spectrum does not mean, however, that the agency should abandon its role as the protector of a valuable public trust. Indeed, as pressures on the spectrum rise, the FCC must do a far better job of assuring that the airwaves are used efficiently and effectively. If it fails to do so, the U. S. runs the risk of becoming an also-ran in the Information Age.

THESE TRADING BLOCS BLOCK FREE TRADE

The discussions over foreign aid at the Houston economic summit were the latest reminder that the industrialized world is aligning into three trade blocs.

Despite Washington's misgivings, Bonn plans to deliver a cornucopia of hard cash to Moscow. Similarly, Tokyo plans to lend $5 billion to Beijing, even though Washington remains opposed to such assistance in the wake of last year's Tiananmen Square massacre. Both nations believe that the advantages from forging closer trade and political ties with their immediate neighbors outweigh those from the kind of multilateral system long advocated by the U. S. Indeed, the Administration itself, even as its influence over Europe and Asia wanes, is leaning toward the creation of a free-trade bloc in the Americas.

But there's a danger in pushing the bloc idea too far. Free trade works on the principle of individual nations selling goods in which they have a comparative advantage. In the end, all benefit. In a world of blocs, however, that advantage erodes. Through tariffs and quotas, or as a result of investment flows within a region, trade increasingly becomes locked within regional boundaries. Consumers are cut off from the best values in goods on the world market. In the name of a guaranteed payoff in the home region, manufacturers give up the ability to spread risk across the globe.

The drift toward blocs isn't going to go away. The world is entering a new period of reconstruction and growth in Eastern Europe, the Soviet Union, China, Southern Asia, and Latin America. Investment will increase the influence of the G-3—Washington, Bonn, and Tokyo—over each member's bloc. But all should realize that the borders of their regions must welcome a free flow of goods and services for the full benefits of their expected massive investment to be realized.

A TAX THAT WOULD SAP WALL STREET'S STRENGTH

In an effort to cut the federal budget deficit, Treasury Secretary Nicholas F. Brady and Budget Director Richard G. Darman are proposing a tax of 0.5% on the market value of stock and bond transactions. Individuals, corporations, and tax-exempt institutions would have to pay the tax every time they sold any security other than U. S. Treasuries. Such a Securities Transactions Excise Tax (STET) could produce revenues of $11 billion a year and is favored by some Democrats because it would hit mainly the rich.

But the cost to U. S. competitiveness—and thus to all Americans—would far outstrip any benefits from reducing the deficit. U. S. financial markets are the most efficient and inexpensive in the world. The proposed tax, however, would add significantly to the cost of doing business in the U. S. Institutions, which account for about 90% of all stock trading on the exchanges, would see their transaction costs triple. For individual investors, expenses would rise by almost 40%. Higher transaction costs in the U. S. would drive business offshore. Right now, 12% of all trading orders in New York are from foreign clients—but a good many of these orders could just as well be executed in London, Frankfurt, Tokyo, or Toronto. Moreover, U. S. institutions would surely take some of their domestic business to overseas bourses to cut costs. History shows that when countries impose transactions fees, they lose business to competing markets.

In fact, since Britain announced that it would abolish transfer taxes in 1991, both West Germany and the Netherlands have been hustling to eliminate theirs, too. Japan and Italy are cutting transfer taxes as well. For the U. S. to levy a new tax while its chief rivals are moving in the opposite direction would be competitive suicide.

Your Business Week With Acer

Every working day Acer and Business Week benefit business organizations throughout the world. Both companies understand the importance of quality in today's global markets. Helping businesses enhance their productivity is what each company is all about.

One example of Acer's commitment to quality can be found in Volkswagen's Wolfsburg plant in West Germany. The plant utilizes 200 Acer 286-based personal computers as workstations in its Incoming Components Inspection System. Linked to various measuring instruments, the workstations process quality control information and store the results in a centralized database.

Achieving excellence around the world, Acer and Business Week are a powerful pair for your business information needs.

Acer®

The Word for Value

INTRODUCING
GM
Let's get it together...buckle up.
© 1990 GM Corp. All rights reserved. Park Avenue is a registered trademark of GM Corp.
J.D. Power and Associates 1990 Initial Quality Survey.℠ Based on
owner-reported problems during the first 90 days of ownership.

JULY 30

THE FED: WHY GREENSPAN DECIDED TO EAS

3 9042 02350029 8

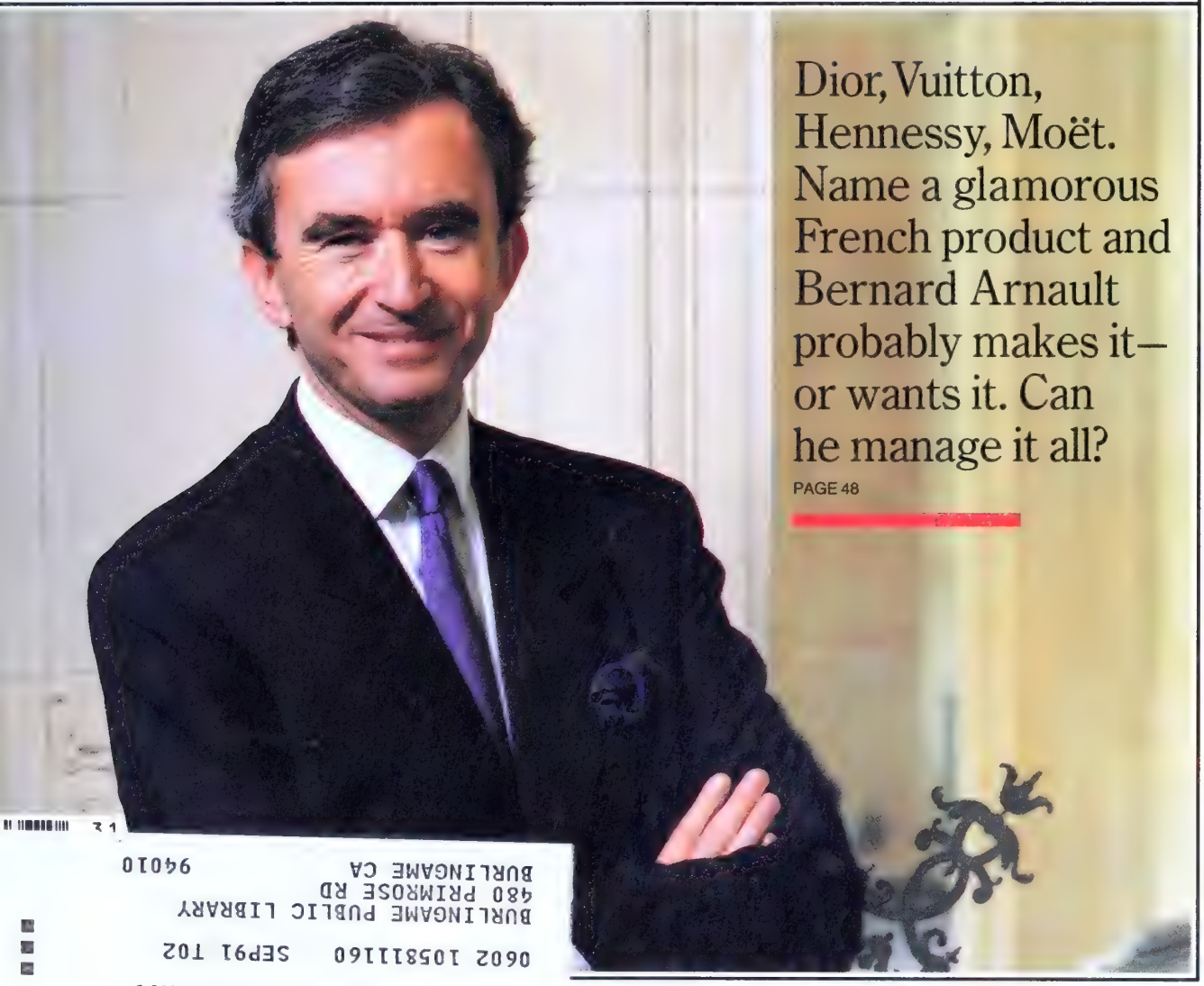
LIFE AFTER
PAGE 60

BusinessWeek

JULY 30, 1990 A McGRAW-HILL PUBLICATION $2.00

BURLINGAME
JUL 20 1990
LIBRARY

Mr. LUXURY



Dior, Vuitton, Hennessy, Moët. Name a glamorous French product and Bernard Arnault probably makes it—or wants it. Can he manage it all?

PAGE 48

**********CAR-RT-SORT**C030
0602 10581116O SEP91 T02
BURLINGAME PUBLIC LIBRARY
480 PRIMROSE RD
BURLINGAME CA 94010

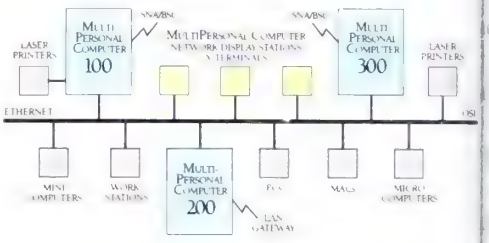
Yes, it's just like your good old PC—familiar and easy to use. No, it's not like your good old PC—underpowered and short of memory, especially on a network. It's a MultiPersonal™ Computer from Motorola, and it has what you need

For starters, raw power. With Motorola's high performance M88000* RISC microprocessor

for speeds over 60 MIPS.

Next, UNIX® System V—the true multi-user, multi-tasking operating system. And X-Windows for transparent access to any resource on the network: Mainframes. Minis. Macs. LANs. PCs. Printers. Scanners. Or any combination thereof, simultaneously

The high resolution Network Display Stations that come with a MultiPersonal computer make UNIX as graphical as it is powerful. And you don't need a degree in nuclear physics to operate a MultiPersonal Computer—only a little intuition, and some mouse-eye coordination for pointing and clicking on icons and windows



It Looks Like A PC.
It Feels Like A PC.
Thank Goodness It's Not.

MULTIPERSONAL™ COMPUTER

Network Computing With A Personal Touch™

88open

*MIPS stands for Millions of Instructions Per Second. © 1990 Motorola, Inc. Motorola Computer Group is a member of Motorola's General Systems Sector. Motorola, MultiPersonal, M88000, and the Motorola logo are trademarks or registered trademarks of Motorola, Inc. All other products or brand names listed are trademarks or registered trademarks of their respective holders.

MultiPersonal Computer

eady to roll, right out of

. It comes complete with

the best software in the

s. Like the Uniplex™ office

spreadsheets and word

ng. Access to your

of Oracle®

mix™

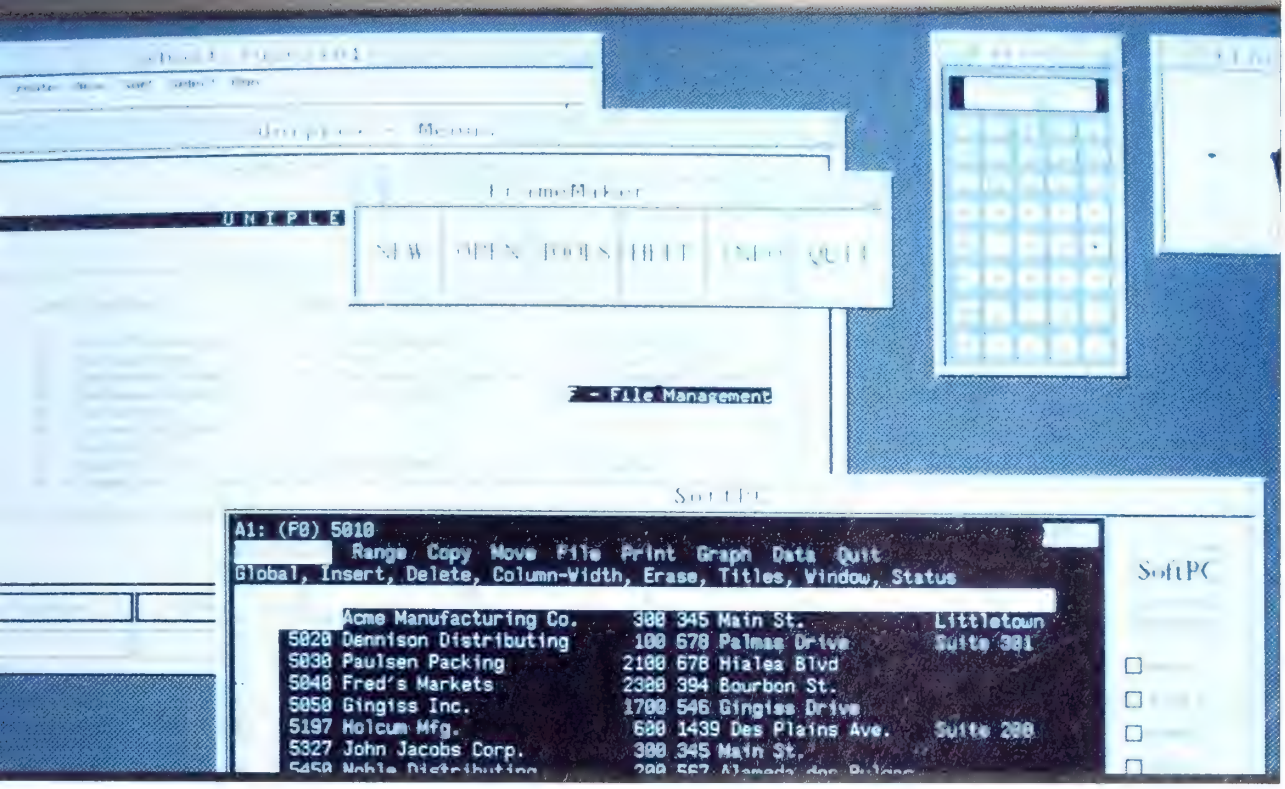
al data-

bases. And FrameMaker™ corporate publishing. It even runs your PC DOS applications, without any additional hardware.

It's a big bundle, but it won't cost you one. In fact, you can't assemble a more capable collection of computers, for less. Period. And it's all backed by Motorola's commitment to uncompromising quality and open standards.

If your business needs more computers, then for goodness sake, get more than just personal computers. Get a MultiPersonal Computer. Call 1-800-556-1234, Ext. 165. Or 1-800-441-2345, Ext. 165, in California.

MultiPersonal Computers come in three sizes for workgroups from 2 to 64 stations. Plus a choice of 17-inch color, or 16- and 19-inch monochrome Network Display Stations. And system peripherals including laser printers, scanners, streaming tape and optical drives.



MOTOROLA
Computer Group

NUMBER 3171

BusinessWeek

JULY 30,199

HEAVY LUGGAGE? DEMAND FOR ARNAULT'S LUXURY ITEMS, SUCH AS $2,200 VUITTON SUITCASES, MAY BE STARTING TO SAG

Cover Story

48 MEET MONSIEUR LUXURY
If it's fashionable and French, there's a good chance Bernard Arnault makes it. He just expanded his empire by adding LVMH Moët Hennessy Louis Vuitton to such hits as Dior, Celine, and Lacroix. Is he just a ruthless raider or the manager he claims to be? Either way, Arnault is one of a new breed of European financiers that are becoming a force to be reckoned with

51 A THIRST FOR GUINNESS
Observers say Arnault has designs on the British liquor giant

Top of the News

16 FIGURING THE FED
By cutting rates, has Greenspan conceded control of monetary policy?

18 FOREIGN INVESTORS BEWARE
Congress is playing to voters' fears by proposing new curbs

19 WHAT HAS NEIL BUSH WROUGHT?
His conduct at Silverado may do lasting damage to the Republicans

20 GETTING CUMMINS IN GEAR
Ford, Tenneco, and Kubota could reverse the engine maker's fortunes

20 KUBOTA MAKES TRACKS
Why the farm-machine maker hitched its tractor to Cummins

21 A SWEET DEAL FOR GTE
The big phone company picked up Contel for a song

22 IS EASTERN OUT OF RUNWAY?
Looming indictments threaten the carrier's slim bailout hopes

23 SEAT BELTS ON AT McDONNELL
Despite 17,000 layoffs, cash is tight

24 ROLLER-COASTER QUARTER
The varying fates of AT&T and CA

26 COMMENTARY
Fresh crude may dilute OPEC's might

28 IN BUSINESS THIS WEEK
IBM, a biotech merger, Pennzoil, Rite Aid, summer dog treats, Great American Bank, American and Delta

International

32 HUNGARY
The company's new Hungarian light bulb subsidiary may give it a low-cost entry to Europe

34 FRANCE
Accor's bid to be 'the McDonald's of hotel chains' by acquiring Motel 6 adds to the Gallic buy-America binge

36 BRITAIN
The Japanese may have found a beachhead in European high tech

39 INTERNATIONAL OUTLOOK
Why aid to China is a high-stakes gamble for Japan

Economic Analysis

10 ECONOMIC VIEWPOINT
Roberts: A new voodoo economics?

12 ECONOMIC TRENDS
Budget blues, blips in job figures, productivity, distress housing sales

13 BUSINESS OUTLOOK
This is one thunderhead that has no silver lining

PICKETING FOR PENSIONS: KURT SHOFFNER IS 23 AND ALREADY SWEATING RETIREMENT—LIKE A GROWING SHARE OF THE WORK FORCE NOT COVERED BY COMPANY PLANS

56 STILL HAVING FUN?
LBOs ARE DOWN, BUT HENRY KRAVIS' KKR HAS A HOST OF PROMISING STRATEGIES LEFT—BUILDING UP COMPANIES, TURNAROUNDS . . .

32 COOKING THE BOOKS:
GE EXECUTIVES FOUND MILLIONS OF 'SOLD' LIGHT BULBS PACKED AWAY IN THE WAREHOUSES OF THEIR NEW HUNGARIAN SUBSIDIARY

Government

WASHINGTON OUTLOOK
Can Bush win the deficit battle?

The Corporation

ANOTHER HILL FOR NAVISTAR
This time, an industry slump and price-cutting rivals cause the pain

MACK TRUCKS' 18 FLAT TIRES
More losses and a loan default loom

A FRENCH GIANT STEPS OUT
CGE moves into cable TV, hospitals, hotels, and U. S. pollution control

Labor

THE VANISHING NEST EGG
For young workers, pensions may be going the way of the dodo

Finance

KKR: WHO NEEDS LBOs?
The dealmaker is searching for new—and foreign—venues

RJR GETS SOME RUNNING ROOM
Its $6.9 billion refinancing package is a solid success

A TEST OF KKR'S PATIENCE
Will it hold on to ailing First Interstate or sell the bank off?

ALAN FELLHEIMER'S WATERLOO
How the Equimark chairman lost the National Bancshares deal

PAPER PROPHETS
Contrarians believe the industry may be nearly out of the woods

66 INSIDE WALL STREET
Why Lubrizol looks like a slick play
Suddenly, Medco is feeling fitter
A bottom-fisher special

83 INVESTMENT FIGURES OF THE WEEK

Science & Technology

68 DRUGS WITH MANY FACES
Researchers are discovering that gene-spliced medications often work on unintended targets

70 DEVELOPMENTS TO WATCH
Superstrong alloys, better pallets, revitalizing metals R&D, PC graphics, BMW's backseat-driver chip

16 WHAT'S MY LINE:
IN EASING MONETARY POLICY, FED CHAIRMAN ALAN GREENSPAN COULD BE RESPONDING TO A CREDIT CRUNCH—OR A POLITICAL SQUEEZE

Information Processing

72 UNISYS RECHARGES
In his first 90 days, CEO Unruh has cut debt and pushed into open systems and 'seamless computing'

74 STALKING THE MARIO BROS.
U. S. software companies are making video games again. But is there room for them all?

Sports Business

77 HIGH JUMP IN SEATTLE
Few expected the Goodwill Games to begin—but brash sports promoter Bob Walsh has them airborne

Personal Business

78 PLANNING: Living wills
LEISURE: Horse sense for riders
AUTOS: A double-shifted Porsche
SMART MONEY: Tuition aid
TRAVEL: Dining-on-the-Hudson

Features

4 BUSINESS WEEK INDEX

6 READERS REPORT

8 BOOKS
Wilford: *Mars Beckons*

82 INDEX TO COMPANIES

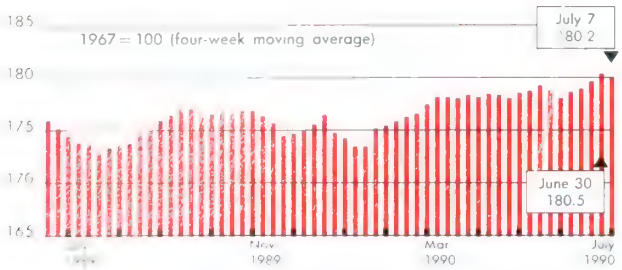
84 EDITORIALS
The Fed is right: More easing does it
Campaign reform is up to voters
Naming culprits in the banking mess

s Week (ISSN 0007-7135) published weekly, except for one issue in January, by McGraw-Hill Inc. U S subscriber rate $39 95 per year In Canada, one year CDN $54 95 Single 2.00 Executive, Editorial, Circulation, and Advertising Offices 1221 Avenue of the Americas, New York, N. Y 10020 Second-class postage paid at New York, N Y , and at additional mailing Postage paid at Montreal, P Q Registration Number 9010 Title Reg in U S Patent Office **Postmaster:** Send address changes to BUSINESS WEEK P O Box 430, Hightstown, N J. 08520

BusinessWeek Index

PRODUCTION

Change from last week: –0.2%
Change from last year: 3.6

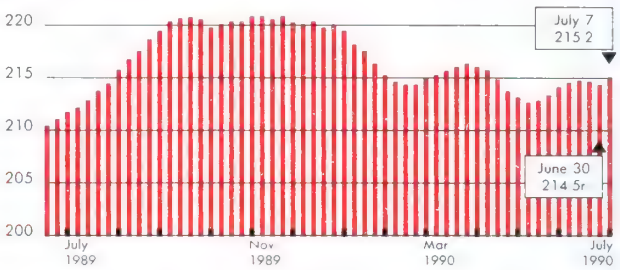


The production index fell slightly for the week ended July 7. On a seasonally adjusted basis, output of coal and autos was down sharply, with other declines posted in rail-freight traffic and steel. These losses were nearly offset by steep gains in truck and lumber production, as well as increases in electric power, paper, and crude-oil refining. Paperboard output was flat for the week. Before calculation of the four-week moving average, the index dropped to 179.2 from 179.7.

BW production index copyright 1990 by McGraw-Hill Inc.

LEADING

Change from last week: 0.3%
Change from last year: 1.4%



The leading index posted a strong increase for the week ended July 7, pushing the index to its highest level in 12 weeks. Higher stock prices, lower long-term bond yields, a decline in the number of business failures, and faster growth rates for real estate loans and M2 offset a sharp decline in materials prices. Before calculation of the four-week moving average, the index advanced to 217.2 from a reading of 214.3 in the prior week.

Leading index copyright 1990 by Center for International Business Cycle Research

PRODUCTION INDICATORS

	Latest week	Week ago	% Change year ago
STEEL (7/14) thous. of net tons	1,821	1,781 ≠	–1.0
AUTOS (7/14) units	72,982	67,691r ≠	30.5
TRUCKS (7/14) units	39,822	36,638r ≠	5.2
ELECTRIC POWER (7/14) millions of kilowatt-hours	63,317	62,258 ≠	1.7
CRUDE-OIL REFINING (7/14) thous. of bbl./day	14,196	14,178 ≠	1.8
COAL (7/7) thous. of net tons	13,887 ≠	17,389	21.9
PAPERBOARD (7/7) thous. of tons	738.0 ≠	770.8r	4.5
PAPER (7/7) thous. of tons	725.0 ≠	746.0r	7.6
LUMBER (7/7) millions of ft.	289.6 ≠	468.1	98.2
RAIL FREIGHT (7/7) billions of ton-miles	16.4 ≠	19.6	18.0

Sources: American Iron & Steel Inst., *Ward's Automotive Reports*, Edison Electric Inst., American Petroleum Inst., Energy Dept., American Paper Inst., WWPA[1], SFPA[2], Association of American Railroads.

FOREIGN EXCHANGE

	Latest week	Week ago	Year ago
JAPANESE YEN (7/18)	147	149	142
GERMAN MARK (7/18)	1.64	1.64	1.90
BRITISH POUND (7/18)	1.82	1.80	1.63
FRENCH FRANC (7/18)	5.50	5.53	6.43
CANADIAN DOLLAR (7/18)	1.15	1.16	1.19
SWISS FRANC (7/18)	1.40	1.40	1.64
MEXICAN PESO (7/18)[3]	2,868	2,857	2,501

Sources: Major New York banks. Currencies expressed in units per U. S. dollar, except for British pound expressed in dollars.

PRICES

	Latest week	Week ago	% Change year ago
GOLD (7/18) $/troy oz.	359.400	354.300	–3.0
STEEL SCRAP (7/17) ≠ 1 heavy, $/ton	110.50	110.50	0.0
FOODSTUFFS (7/16) index, 1967 = 100	224.7	227.0	0.5
COPPER (7/14) ¢/lb.	127.0	120.2	15.8
ALUMINUM (7/14) ¢/lb.	73.0	72.5	–8.2
WHEAT (7/14) ≠ 2 hard, $/bu.	3.13	3.25	–27.2
COTTON (7/14) strict low middling 1-1/16 in., ¢/lb.	78.90	79.50	18.9

Sources: London Wed. final setting, Chicago mkt., Commodity Research Bureau, *Metals Week*, Kansas City mkt., Memphis mkt.

LEADING INDICATORS

	Latest week	Week ago	% Change year ago
STOCK PRICES (7/13) S&P 500	362.00	358.45	9.9
CORPORATE BOND YIELD, Aaa (7/13)	9.26%	9.22%	3.6
INDUSTRIAL MATERIALS PRICES (7/13)	101.2	101.4	–3.3
BUSINESS FAILURES (7/6)	249	273r	7.3
REAL ESTATE LOANS (7/4) billions	$377.2	$373.7r	12.1
MONEY SUPPLY, M2 (7/2) billions	$3,282.4	$3,272.0r	5.8
INITIAL CLAIMS, UNEMPLOYMENT (6/30) thous	350	365	1.7

Sources: Standard & Poor's, Moody's, *Journal of Commerce* (index: 1980 = 100), Dun & Bradstreet (failures of large companies), Federal Reserve Board, Labor Dept. CIBCR seasonally adjusts data on business failures and real estate loans.

MONTHLY ECONOMIC INDICATORS

	Latest month	Month ago	% Change year ago
CONSUMER PRICE INDEX (June)	129.9	129.2	4.7
PRODUCER PRICE INDEX (June) finished goods	117.6	117.4	3.2
INDUSTRIAL PRODUCTION (June) total index	109.8	109.3r	1.3
RETAIL SALES (June) billions	$147.8	$147.0r	2.4

Sources: BLS, Federal Reserve Board, Census Bureau

MONETARY INDICATORS

	Latest week	Week ago	% Change year ago
MONEY SUPPLY, M1 (7/2)	$818.2	$809.4r	5.3
BANKS' BUSINESS LOANS (7/4)	323.5	321.9r	1.5
FREE RESERVES (7/11)	442	634r	–47.6
NONFINANCIAL COMMERCIAL PAPER (7/4)	147.7	148.9	17.6

Sources: Federal Reserve Board (in billions, except for free reserves, which are expressed for a two-week period in millions).

MONEY MARKET RATES

	Latest week	Week ago	Year ago
FEDERAL FUNDS (7/17)	8.05%	8.34%	9.24%
PRIME (7/18)	10.00	10.00	11.00
COMMERCIAL PAPER 3-MONTH (7/17)	7.95	8.15	8.63
CERTIFICATES OF DEPOSIT 3-MONTH (7/18)	8.03	8.26	8.75
EURODOLLAR 3-MONTH (7/11)	8.23	8.19	8.91

Sources: Federal Reserve Board, First Boston

≠ Raw data in the production indicators are seasonally adjusted in computing the BW index (chart); other components (estimated and not listed) include machinery and defense equipment.
1 = Western Wood Products Assn. 2 = Southern Forest Products Assn. 3 = Free market value NA = Not available r = revised NM = Not meaningful

"DO IT RIGHT."

Victor Simon
Senior Petroleum Engineer
Texaco

"We have a corporate responsibility to do business with a conscience. This includes ensuring that the issues we are all passionate about—the environment and the quality of life—are not overlooked."

Victor Simon is a Texaco Senior Petroleum Engineer. He is committed to making certain that Texaco's oil and gas operations in the Eastern U.S. are conducted in a manner consistent with environmental safeguards.

"This responsibility includes more than just being attentive to government regulations. In every step of our operations, from obtaining emission permits to ensuring on-site safety, simply meeting legislated standards isn't enough. We can and *do* exceed such standards when we believe it is the right thing to do. We have an obligation to our employees, our contractors, our customers and the people in the communities around us to act with their interest in mind, not just react."

Victor and his group have a commitment to corporate quality that goes beyond standard business practice. They have a driving desire to succeed without wasting time or energy; to make sure that when a job is done, it's done right the first time and every time.

"Basically, good business isn't just bottom-line efficiency. It's also safety on the job—whether you're drilling, producing or supplying. It's respect for the environment and for each other."

It's also people like Victor.

Star of the American Road

TEXACO – WE'VE GOT THE ENERGY.

BusinessWeek

EDITOR-IN-CHIEF: Stephen B. Shepard
MANAGING EDITOR: John A. Dierdorff
EDITOR: William Wolman
ASSISTANT MANAGING EDITORS: John Maughan, Mark Morrison, Anthony J. Parisi
ART DIRECTOR: Malcolm Frouman
SENIOR EDITORS: Bob Arnold, Nancy Cardwell, Robert J. Dowling, Stuart Jackson, Richard F. Janssen, Geoff Lewis, Sally Powell, Ciro Scotti, Lee Walczak (Washington), G. David Wallace, Seymour Zucker
EDITORIAL PAGE EDITOR: John E. Pluenneke
CHIEF OF CORRESPONDENTS: Keith G. Felcyn
INTERNATIONAL EDITION EDITOR: Frank J. Comes
SENIOR WRITERS: Anthony Bianco, John A. Byrne, Judith H. Dobrzynski, John Hoerr, Gene G. Marcial, Bruce Nussbaum, John Pearson, Otis Port, Chris Welles, Brenton Welling
ASSOCIATE EDITORS: Duane E. Anderson, Robert Barker, Elizabeth Ehrlich, Marc Frons, William J. Holstein, Jeffrey M. Laderman, William D. Marbach, Mark N. Vamos
DIRECTOR EDITORIAL SYSTEMS & OPERATIONS: Thomas J. Reed
SENIOR SYSTEMS MANAGER: Richard I. Ulman
PICTURE EDITOR: Lawrence Lippmann
ECONOMICS: James C. Cooper (Business Outlook editor), Kathleen Madigan (Assoc.) Karen Pennar (Economics editor), Christopher Farrell (Assoc.), Michael J. Mandel (Assoc.) Gene Koretz (Economic Trends editor) William Glasgall (International)
DEPARTMENT EDITORS: Books: Denise Demong **Corporate Finance:** Larry Light, David Zigas (Assoc.) **Industries:** Thane Peterson **Information Management:** Jeffrey Rothfeder **Information Processing:** John W. Verity **International Edition:** Elizabeth Weiner **International News:** Peter Galuszka **Investment Banking:** Jon Friedman **Labor:** Aaron Bernstein **Legal Affairs:** Michele B. Galen **Marketing:** Christopher Power, Amy Dunkin (Assoc.) **Markets & Investments:** Gary Weiss **Media:** Susan Duffy **Money & Banking:** John Meehan **News:** Harris Collingwood **People:** Peter Finch **Personal Business:** Donald H. Dunn **Science:** Emily T. Smith **Scoreboards:** Robert Mims **Telecommunications:** Peter Coy **Transportation:** Michael Oneal
STAFF EDITORS: Brian Bremner, Deidre A. Depke, Naomi Freundlich, Bruce Hager, Fred F. Jespersen, Mark Landler, Leah J. Nathans, Stanley Reed, Monica Roman, Andrea Rothman, Troy Segal, Suzanne Woolley
ASSISTANT EDITOR: Laura Zinn
COPY EDITORS: Harry Maurer (Deputy chief), Michael Mercurio, Joan Warner (Asst. chiefs), Marc Miller, Jack Robbins, Jim Taibi (Sr. Copy Editors), Tim Belknap, Pam Black, Prudence Crowther, Carl Desens, Hardy Green, Aleta Kaufman, Cynthia McClean, David Pengilly, Malka Percal, Barbara Tierney, Dalia Kandiyoti, Kim Jacobs, Aida Rosario, Rebecca Stead (Researchers)
PRODUCTION COPY EDITORS: Donald Halsband (Chief), Hallberg Hallmundsson, Robert S. Norman, Celine Keating, Karen Leiner Stephan M. Romanoff
ART: Laura Baer, Steven Taylor (Deputy directors), Jeri Hansen, Eric Rosenberg (Assoc. directors), Pamela Harris, Craig Socia (Asst. directors) **Graphics:** Arthur Eves (Director), Joan Danaher (Deputy director) Rob Doyle (Sr. Illustrator), Laurel Daunis, Ray Vella (Illustrators) **Production:** Mary Lee Schneider (Mgr.), Stephen J. Romeo (Asst. mgr.)
PHOTOS: Sue Bloom (Deputy Picture editor), Scott Miyn (Assoc. Picture editor), Todd James, Anne Murray, Ronnie Weil (Asst. editors) Kathleen Daly (Researcher) Bettina Baudoin (Researcher - Paris) Joan Clark (Traffic), Lawrence Crowe (Librarian)
EDITORIAL OPERATIONS: Albert E. Baker, Richard Balestrino, A. Peter Clem, Yvonne Rodriguez, Claire Worley (Production managers) Thomas R. Dowd, Sharon L. Eng, Fidel Lee, Jose L. Martin, Jane M. Perkinson, Craig Sturgis, Karen Turok, Ilse V. Walton, Nicholas White (Makeup editors), Felix Lindicy (Makeup asst.) Donald C. Pearson (Traffic manager), Dale I. Arnold, Edgardo Torres (Production assts.)
CORRESPONDENTS: Jerome Zukosky (Deputy chief) **Atlanta:** Chuck Hawkins (Mgr.), Walecia Konrad **Boston:** Keith H. Hammonds (Mgr.), Laura Jereski, Gary McWilliams **Chicago:** James E. Ellis (Mgr.), David Greising, Kevin Kelly, Julia Flynn Siler, Lois Therrien **Cleveland:** Zachary Schiller (Mgr.), Maria Mallory, Stephen Phillips **Connecticut:** Todd Vogel (Mgr.), Lisa Driscoll **Dallas:** Wendy Zellner (Mgr.), Jim Bartimo **Denver:** Sandra D. Atchison (Mgr.), William C. Symonds (Sr. Correspondent) **Detroit:** James B. Treece (Mgr.), David Woodruff **Houston:** Mark Ivey (Mgr.) **Los Angeles:** Ronald Grover (Mgr.), Larry Armstrong (Sr. Correspondent), Kathleen Kerwin, Eric Schine **Miami:** Gail DeGeorge (Mgr.), Antonio N. Fins **Minneapolis-St. Paul:** Russell Mitchell (Mgr.) **Philadelphia:** Joseph Weber (Mgr.) **Pittsburgh:** Gregory L. Miles (Mgr.), Michael Schroeder **San Francisco:** Joan O'C. Hamilton (Mgr.), Richard Brandt, Barbara Buell, Robert Hof, Maria Shao **Seattle:** Don Jones Yang (Mgr.) **Washington:** Stephen H. Wildstrom (Sr. News Editor), Stan Crock (News Editor), Amy Borrus, Vicky Cahan, John Carey, Paula Dwyer, Dean Foust, Susan Garland Howard Gleckman, Dave Griffiths, Douglas A. Harbrecht, Bill Javetski, Mark Lewyn, Paul Magnusson, Mike McNamee, Seth Payne, Tim Smart, Catherine Yang **Bonn:** John Templeman (Mgr.), Gail Schares **Brussels:** Jonathan Kapstein (Mgr.) **Hong Kong:** Dinah Lee (Mgr.) Pete Engardio **London:** Richard A. Melcher (Mgr.), Mark Maremont **Mexico City:** Stephen Baker (Mgr.) **Moscow:** Rose Brady (Mgr.) **Paris:** Stewart Toy (Mgr.), Jonathan B. Levine, Blanca Riemer **Rome:** John Rossant (Mgr.) **Sao Paulo:** Jeffrey Ryser (Mgr.) **Tokyo:** Robert Neff (Mgr.), Neil Gross, Ted Holden
EDITORIAL SERVICES: Broadcasting: Ray Hoffman **Business Manager:** Barbara Boynton **Information Services:** Jude Hayes (Director), Judi Crowe (Asst. editor), Dana Gordon, Fred Katzenberg, Jessie Khatami, Rex Long **Public Relations:** Christine Summerson, Josephine Coppola **Reprint Permission:** Vivian J. K. Betton **Systems:** Ron Brayer, Courtenay Eddy

PUBLISHER: John W. Patten
SR. VP, DIRECTOR OF MARKETING: John J. Bedell
SR. VP, OPERATIONS: Gary B. Hopkins
VPs, INTERNATIONAL: Gerd Hinske, Earl S. Moore, Jr.
VP, PLANNING & DEVELOPMENT: Barbara Munder
VP, CIRCULATION: Kitty Carroll Williams
VPs, SALES: Constance E. Bennett (San Francisco), John R. Campbell (Stamford), Charles W. Hennessy (Philadelphia), Irwin Kornfeld (New York), Thomas O. McDonough (Chicago)
DIRECTOR, ADVERTISING BUSINESS: Linda F. Carvalho
DIRECTOR, PRODUCTION: Mario J. Talluto

Readers Report

THE PEACE DIVIDEND: WHO GETS SHORTCHANGED?

Congress overreacts again in "Who pays for peace?" (Cover Story, July 2). It's understandable that given all the current economic and political factors, the U. S. needs to reduce its defense spending and increase the efficiency of the Defense Dept.—and the government in general. But why make drastic, short-term cuts based almost entirely upon what has occurred in the Soviet Union and Eastern Europe over the past year, and to the detriment of our own people and businesses?

The political environment in the Soviet Union and Eastern Europe is so chaotic right now that the tide could change for the worse just as quickly as it has changed for the better.

Congress should make defense reductions gradually over a period of years to help the U. S. adjust to these changes and to avoid forcing most defense contractors out of business. After all, if the tide does change in the next couple of years, and our defense base is completely eroded, who's going to produce our weapons—Japan?

Dennis Lovejoy
Fairborn, Ohio

Your Cover Story brings no tears to my eyes. I have never understood how anyone could devote his or her working life to what is at best a necessary evil. What do you think about at home at night when you have spent the day making mortar shells?

As for society and the economy, both would be ahead if the workers were paid the same wage to pick up bottles and cans along the roadside.

E. S. McCollister
Iowa City, Iowa

ILLEGAL IMMIGRATION: WHY FINES AND PRISON DON'T WORK

Regarding "Opening the golden door wider—to newcomers with know-how" (Economic Viewpoint, June 11), I agree with Professor Gary Becker that we should allow such valuable potential emigrants from Hong Kong, the Soviet Union, and other nations to come to the U. S. However, Becker's methods for stemming the flow of illegal entrants is simplistic and, ultimately, unviable and useless.

The idea of fining and imprisoning captured illegal immigrants ignores the realities of the situation. Since the majority of illegal immigrants come to the U. S. for economic reasons, fining them of what little they have will only make it more necessary for them to return. Imprisonment would also increase their need to return to find work.

The majority of these immigrants are never caught, and most will risk the fines and jail sentences for the only means of survival for their families.

Edward Rivas
San Antonio

AN OIL SPILL SOLUTION: CHANGE THE LAW OF THE SEAS

You are off base in your Commentary on oil spill cleanup ("How Congress and big oil can clean up their cleanup act," Science & Technology, June 25).

The oil industry is not incapable of responding quickly to a major spill. The botched Mega Borg response was caused by confusion over jurisdiction. The ship was anchored 60 miles offshore in international waters. Who has jurisdiction out there? Certainly not the U. S. Coast Guard, and certainly not oil companies that weren't even remotely responsible for the mishap.

The tanker operator way off in Norway had the jurisdiction, and he didn't see fit to use the assistance available to him in the Houston area. What's needed is a change in the law of the seas that would permit those whose shores are about to be messed up to respond, whether the ship owner likes it or not.

The Petroleum Industry Response Organization (PIRO) will have the capability of handling spills of Mega Borg size and larger if Congress will limit the liability. We're talking about the companies doing the cleanup—the good samaritans, not the ones responsible, whom we all agree should shoulder some liability.

With the current state of court awards in liability cases, particularly

BUSINESS WEEK
JULY 30, 1990 ***3171
ISSN 0007-7135

McGraw Hill

Published weekly except for one issue in January by McGraw-Hill Inc. Founder James H. McGraw (1860-1948)
Executive, Editorial, Circulation, and Advertising Offices: McGraw-Hill Building, 1221 Avenue of the Americas, New York, N.Y. 10020. Telephone (212) 512-2000. Domestic Telex 12-7960. International Telex 23-7960. Cable: McGraw Hill New York. TWX 710-581-4879.
Domestic subscription rate $39.95 per year. 2 years $69.95. 3 years $94.95. Single copy $2. Write for rate in other countries.
Business Week Subscriber Services 1-800-635-1200

European Circulation Center, McGraw-Hill House, Maidenhead, Berks, England. Telephone 0628-23431. Telex 848849.
Postmaster: Please send address changes to BUSINESS WEEK, P.O. Box 430, Hightstown, N.J. 08520. Second-class postage paid at New York, N.Y., and at additional mailing offices. Postage paid at Montreal, P.Q. Registration Number 9010.

Copyright © 1990 by McGraw-Hill Inc. All rights reserved. Title registered in U.S. Patent Office.

Officers of McGraw-Hill, Inc.: Joseph L. Dionne, Chairman, President and Chief Executive Officer, Robert N. Landes, Executive Vice President, General Counsel, and Secretary, Harold W. McGraw, III, Executive Vice President, Frank D. Penglase, Senior Vice President, Treasury Operations.

PHOTOCOPY PERMISSION: Where necessary, permission is granted by the copyright owner for those registered with the Copyright Clearance Center (CCC), 27 Congress St., Salem, Mass. 01970, to photocopy any article herein for the flat fee of $1.50 per copy of each article. Send payment to the CCC. Copying for other than personal or internal reference use without express permission of McGraw-Hill is prohibited. Address requests for customized bulk reprints to Business Week Reprints, P.O. Box 457, Hightstown, N.J. 08520, or call 609 426-5494. ISSN 0007-7135/90/$2.00

nst those who have deep pockets, understandable that companies are eager to assume billion-dollar risks ning up spills they did not cause. ss the plaintiff's bar or the courts d their ways on third-party liability, ongress does it for them, no one in ight mind can afford to get involved meone else's major spill.

Robert W. Wells
Director
Corporate Communications
Coastal Corp.
Houston

IEETINGS, THE HUMAN VOICE RKS JUST FINE, THANK YOU

our article "At these shouting matches, no one says a word" (Ination Processing, June 11) points critical need for honest and open nunication.

hile using computer terminals to ide this may appear to be a work- solution, the need to break down iers—especially regarding sensitive motional issues—almost always res people talking to people. It aps to be a simple answer, but in our -tech age we sometimes search for complex solution.

the Northern Telecom Morrisville ity, we have "truth and honesty" tings where people talk about how feel in the workplace, without the stance of computers. In a situation re people are in earshot, the human needs no assistance.

Hurt Covington
Manager
Human Resources
Northern Telecom Inc.
Morrisville, N. C.

our article illustrates the final chapter in the total dehumanization he corporate office. The problem effective meetings isn't hardwared. But rather, there is a lack of leadership development within our panies.

aving said that, I would fully sup- the electronic meeting as soon as icial intelligence is created so that I skip the meeting altogether.

Richard B. Stoebe
Woodbury, Minn.

TING PERRIER OF HOT WATER

"You can lead a restaurateur to Per- er, but . . . " (Top of the News, June you identified upscale eateries as the meter by which Perrier is to gauge success or failure of its return to the ket. While this is indeed a critical a, we must take issue with your ctive use of both facts and sources.

Perrier has taken unprecedented steps to act responsibly throughout the past five months, first by voluntarily recalling our product and then by quickly and fairly redistributing it, in less than eight weeks, to 75% of the nation's grocery and convenience stores. We are proud of this achievement.

The restaurant and hotel segment is, admittedly, a tougher challenge because of the often thousands of individual accounts in each market that must be serviced. As a result, distribution has always been slower to build in this area. Nevertheless, our progress to date meets our expectations.

Market analyses aside, however, we noted your choice of quoted sources to be less than representative. Ronald Pozc, for example, is a dispatcher for a branch of the Kemmerer Bottling Group in Chicago, with rather limited access to actual sales figures.

You went on to quote André Soltner of Lutèce, implying that he was doubtful about the brand's prospects. In reality, Soltner has gone on record as a supporter of Perrier, and he was among the first in New York to reorder.

We never expected our relaunch to be easy. This is, after all, a highly competitive business. On the other hand, we do expect the competition—and the press—to be fair.

Jane Lazgin
Public Relations Manager
Perrier Group
Greenwich, Conn.

GLOBAL FUSION: MORE SCIENTIFIC BANG FOR THE BUCK

You are on the mark with your editorial about the U. S. approach to international cooperation in big science ("Big science should be global science," July 2). It is a way to implement large, important projects and to share both the costs and the scientific gains. We cannot begin as if we will build such projects ourselves, carry out the development and design, and then ask other countries to join us as partners. None would have a sense of real participation. They may not even agree with our approach, and they would surely feel we are only after their money.

We are, however, trying to change. In one area you mentioned, fusion energy, the U. S. and its partners—the European Community, Japan, and the Soviet Union—are doing it right. After an initial call in 1985 by President Reagan and President Gorbachev to work together, these countries joined to carry out a conceptual design for the next major fusion experimental power reactor, called ITER.

The development of fusion energy through global cooperation can be a model for big science. With ITER, all parties began together, developed the program together, and agreed on its timetable, mission, and cost. What is needed now is agreement by the governments to build the project together. It will be a test of our stated intentions and our quality as a reliable partner.

Robert W. Conn
Director
Institute of Plasma and Fusion Research
Los Angeles

NOT SEEING THE FOREST FOR THE LOGS

The headline and second paragraph of your article on "Weyerhaeuser's exports: An endangered species?" (The Corporation, July 16) implies that our $1.6 billion of U. S. exports in 1989 were log exports, and that the entire business is theoretically endangered.

Logs are an important, but minor, share of our export mix. More than 70% of Weyerhaeuser exports are manufactured goods, the large majority of them pulp and paper products, but also including lumber and other wood products. The remainder of the mix is raw materials, including logs and manufacturing-residual wood chips used in overseas pulp and paper production.

Tom Ambrose
Director
External Communications
Weyerhaeuser Co.
Tacoma, Wash.

WALL STREET'S SIREN SONG DOESN'T LURE ALL MBAs

In "Have MBA, will travel—anywhere" (Top of the News, July 2), you state: "When they do find positions, many MBAs are likely to end up working in lower-paying finance or marketing jobs in industry." I am compelled to point out that some of us neither wanted nor sought jobs on Wall Street or in consulting upon leaving business school. In fact, many MBAs consciously chose careers in industry.

Furthermore, criteria other than monetary compensation were considered in making these career decisions. Your implication that most MBAs covet lucrative positions in investment banking or consulting, and that the rest are somehow relegated to actually working in industry, is inaccurate.

R. Richard Rowland Jr.
Marketing Manager
Tarmac Virginia Holdings Inc.
Norfolk, Va.

Letters to the Editor should be sent to Readers Report, Business Week, 1221 Avenue of the Americas, New York, N. Y. 10020. Fax: (212) 512-4464, Telex: 12-7960, Intl. 4998204. All letters must include an address and daytime and evening telephone numbers. We reserve the right to edit letters for clarity and space.

MARS BECKONS: THE MYSTERIES, THE CHALLENGES, THE EXPECTATIONS OF OUR NEXT GREAT ADVENTURE IN SPACE
By John Noble Wilford
Alfred A. Knopf • 244pp • $24.95

VISIT TO A RED PLANET

Of all the planets in the solar system, only Mars seems regularly to turn keen minds to mush. How else does one explain the story of Percival Lowell, scion of Boston wealth and privilege, world traveler, and amateur stargazer? Obsessed with Mars, Lowell gave American astronomy a huge boost by building an observatory in the thin air of an Arizona mountain peak. But when he trained his telescope on the Red Planet, his eyes played second fiddle to his imagination. Where other astronomers had seen faint markings, Lowell beheld a network of canals. In July, 1894, he announced that the canals were the work of intelligent beings.

Lowell's bold pronouncement touched a responsive chord, one that still reverberates. As *New York Times* science writer John Noble Wilford dryly observes in his engaging new book, *Mars Beckons*: "People seemed to want to believe in Martians." In 1922 and 1924, when Mars was especially close to earth, the U. S. government requested all radio stations—including naval stations in the Pacific—to be silent so operators could listen for Martian messages. On Halloween Eve in 1938, Orson Welles's radio adaptation of the Martian invasion in H. G. Wells's classic *The War of the Worlds* set off mass hysteria.

And just this year, Vice-President Dan Quayle blithely argued that one compelling reason for President Bush's proposed new mission to Mars was to find out if the canals make any kind of life—including human life—possible. (Quayle might be surprised to learn that his, and Lowell's, mistaken belief in canals stems in part from a mistranslation of the Italian *canali*. That word, which usually translates as "channels" or "grooves," was first applied to the markings by Italian astronomer Giovanni Schiaparelli in 1877.)

Even today's scientists aren't immune to wishful thinking. Wilford describes how astronomer Carl Sagan persisted in believing that life might exist on Mars—even after the first space probes, in 1965, sent back images of a barren, hostile landscape where temperatures rarely rise above 0F. Sagan subsequently mounted an unsuccessful campaign to add floodlights to the two Viking spacecrafts that landed on the planet in 1976. "I have this recurring fantasy that we'll wake up some morning and see . . . footprints all around Viking that were made during the night, but we'll never get to see the creature that made them because it is nocturnal," he explained.

Why this compulsion to believe in life on Mars? One answer, Wilford suggests, is that people have wanted to see on Mars what is lacking on earth. Lowell, for example, imagined a wise and gentle race that could wean earthlings from wars and suffering.

Mars has also been envisioned as a proto-Eden where humanity could begin anew, "free of many of the old world's diseases, ignorance, fears, and outworn prejudices," in the words of one scientist. In fact, some researchers are actually hoping to render the frozen planet habitable by pumping tons of chlorofluorocarbons to manufacture a greenhouse effect. The mind boggles at the monumental folly and hubris of such a scheme. "There is a deep-seated desire to find another place where we can make another start," says California Institute of Technology geologist Bruce Murray at one point in the book. But "it has been very, very hard to face up to the fact that it is just wishful thinking."

This stark contrast between imagination and reality casts its shadow over Wilford's book. The veteran reporter tries to convey the excitement among scientists at Caltech's and NASA's Jet Propulsion Laboratory as the first photographs from the distant planet arrive on earth. The pictures, he says, revealed "a world of unsuspected splendor and variety . . . [with] a volcano higher than any known mountain in the solar system . . . a chasm wider and deeper than the Grand Canyon . . . stretches of sand dunes greater than the Sahara, and vast, ice-coated polar landscapes."

Even so, Mars as described by Wilford can't match the crystalline cities and musical-voiced Martians in Ray Bradbury's *Martian Chronicles* or the beautiful Dejah Thoris, Princess of Helium, and her eight-legged beasts in Edgar Rice Burroughs' yarns of the planet that locals call Barsoom. When Wilford turns from humanity's romance with the Red Planet to the actual hunk of rock, the book suffers a mild case of anticlimax.

It doesn't help that the last successful missions to Mars were launched back in 1972. This forces Wilford to cover well-plowed ground, describing the U. S. and Soviet space programs and listing possible next steps in the exploration of Mars. The approach favored by most scientists is to launch a series of robots to learn if the planet once had vast oceans and to solve other compelling scientific mysteries. But Wilford hopes that people will one day reach the planet. "Humans will go forth to Mars," he insists. "It can be the beginning of the irreversible expansion of humans into the cosmos." Wilford, it seems, has a touch of the same bug that bit Percival Lowell.

BY JOHN CAREY

Washington Correspondent Carey began covering the space program with Pioneer's exploration of Saturn in 1979.

Eastman Kodak Company, 1989

Would you like to be able to manage documents the way you manage data? You can, if you capture the document and convert it to an image, so it can be managed electronically.
Kodak has tools that make it easy. You simply replace the paper document with a picture taken on microfilm or electronically scanned onto an optical disk or a magnetic medium. A few keystrokes, and you have the image on-screen, complete with marginal notes, endorsements, diagrams and signatures. You've built an image base.

We are more than photographs. We are imaging. ***For more details on images that mean business, call 1 800 445-6325, Ext. 960A.***

CAPTURE THE IMAGE. CALL KODAK

The new vision of Kodak

WHO'S DOING VOODOO ECONOMICS NOW?

BY PAUL CRAIG ROBERTS

It's ironic that Reagan's successor is leading the country toward Nixonomics. If history is any guide, higher taxes will only mean higher inflation and unemployment

PAUL CRAIG ROBERTS IS CHAIRMAN OF THE INSTITUTE FOR POLITICAL ECONOMY IN WASHINGTON

For decades, economists have taught the self-defeating folly of hiking taxes to compensate for lower revenues from a slower economy. Now, this policy no-no of the postwar period has been sold to President Bush by his Budget Director and Treasury Secretary—to the great relief of the Democrats who were dying on the political vine.

Once again, a Republican Administration is claiming that its Wall Street constituency wants higher taxes as the price of lower interest rates. But a leading Wall Street economist, Edward S. Hyman of C. J. Lawrence, calls this policy "playing with fire." He reviews the data and shoots down all the unsubstantiated claims that a tax hike will lower interest rates, lower inflation, and strengthen the economy. He shows that during the 1960s and 1970s, rising interest rates went hand in hand with rising marginal tax rates—and that during the 1980s interest rates fell as tax rates declined.

EASY MONEY. The same relationship holds with inflation and unemployment. Hyman reports that "inflation accelerated during the 1970s in part because taxes were increased. Inflation slowed during the 1980s in part because taxes were cut.... The current low marginal tax rate helps explain why unemployment is still low and argues that it may continue lower than expected." If economic history is a guide, higher taxes in the 1990s will mean higher inflation and unemployment.

Indeed, the policy mix that has been sold to the President—higher taxes and easy money—is the perfect prescription for reviving stagflation. Prior to Reaganomics, the government attempted to compensate for declining incentives to produce by stimulating aggregate demand with monetary expansion. We paid for gains in employment and economic growth with higher rates of inflation. Supply-side policy broke this cycle, and we have enjoyed a record expansion without any rise in the rate of inflation.

Now, Washington is working fulltime to revive the destructive trade-offs between inflation and unemployment. Policymakers are proposing to levy higher taxes on an economy slowing from a resurgence of regulation and an adverse legal climate, and to compensate for the negative impact on growth by having the Federal Reserve create more money. It is ironic that Reagan's successor, terrified by that nemesis of the Republican Party, the budget deficit, is leading the country back toward Nixonomics and, ultimately, to calls for wage and price controls and an incomes policy.

There is no extant economic theory, empirical research, or public concern that justifies the extraordinary policy flip-flop of George Bush. Economists of every political persuasion have searched exhaustively without success for evidence that the deficit is a significant problem.

Robert Eisner, past president of the American Economic Assn., calls the deficit "that nonproblem." A recent study by Harvard economist Robert J. Barro finds no connection between deficits and higher interest rates. Nor did the Treasury Dept.'s exhaustive survey in the 1980s. Robert Ortner, who suffered from deficitphobia while serving in the Reagan Commerce Dept., has since discovered the facts and has just published a book, *Voodoo Deficits*, that debunks the hysteria that is seemingly driving the Bush Administration. Even the left wing's Robert L. Heilbroner, a true Reaganphobe, has just published a book on the debt and the deficit—which he says are "false alarms." The Administration's public confusion over the reason for its policy reversal suggests that economic analysis played little role. The President has forked his tongue in pursuit of a different goal than deficit reduction. The purpose of "tax revenue increases" is not to cut the deficit, but to avoid a Gramm-Rudman sequester that would cut spending.

Under the Gramm-Rudman rules, higher tax revenues translate directly into higher spending. The formula sets spending equal to the sum of the forecasted tax revenues, the deficit target, and a fudge factor of $10 billion. Since the government's revenue estimators assume that higher taxes have no adverse economic effects, a tax increase balloons the deficit by overpredicting revenues. None of the tax increase deals pushed off on President Reagan by the same people who are advising Bush resulted in a lower deficit.

BUDGET COWARDS. In 1984, spending restraints reduced the deficit $23 billion, and a near spending freeze cut the 1987 deficit by $72 billion. The real problem is that neither Congress nor the White House wants to anger the organized special interests grouped around every category in the budget with Gramm-Rudman cuts just prior to the 1992 elections. The politicians prefer to spread a tax increase around unorganized taxpayers rather than to arouse the interest groups on which they are dependent for campaign funds.

In the final analysis, President Bush lined up with the Washington Establishment against the people. Washington wants a tax hike to exorcise Ronald Reagan, not to cut the deficit, which is its most useful tool for negotiating deals that raise taxes. ▣

astman Kodak Company, 1989

Information is only as good as your ability to share it. Kodak has ways to make images multiply, very quickly, wherever they're coming from and going to.

Whether the information is digitized in the memory of a mainframe or PC, stored on an optical disk, floppy disk or on microfilm, Kodak has a way to put it on paper. We can publish it electronically, or copy from paper to paper. And send the image across the room or across the country. With the image quality you expect from the world's premier imaging company. In fact, our advanced copiers and non-impact printers will put images on both sides, then collate and staple the pages. In color when you need it. And all are backed-up with the best support and service in the business.

We are more than photographs. We are imaging. ***For more details on images that mean business, call 1 800 445-6325, Ext. 960D.***

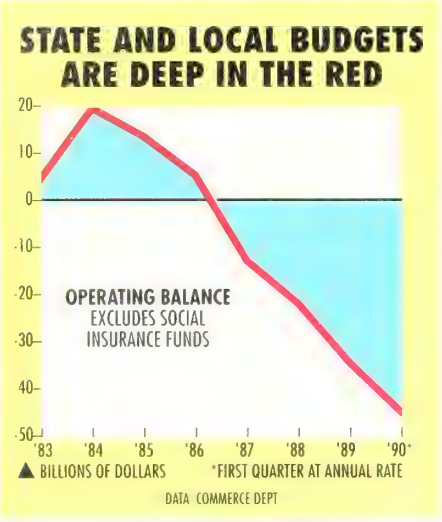
SHARE THE IMAGE. CALL KODAK

The new vision of Kodak

BY GENE KORETZ

THE FEDS AREN'T THE ONLY ONES IN THE HOLE

While national attention is understandably focused on the efforts of Congress and the Administration to cut the projected fiscal 1991 federal deficit of $169 billion down to acceptable size, a similar crisis may be brewing at the state and local levels. According to the Commerce Dept., the combined balance of all state and local government operating budgets, including capital outlays, has been sinking deeper and deeper into the red since 1986. At last count, it was registering a shortfall of $44.9 billion at an annual rate (chart).



The crunch is not just regional. Gerald H. Miller, executive director of the National Association of State Budget Officers, reports that the budgetary woes afflicting New England and other parts of the Northeast in recent years have spread to states such as Michigan, North Carolina, California, and Mississippi. "For the states as a whole," he says, "the fiscal year that just ended was the worst since 1983."

Meanwhile, a recent survey of 570 cities by the National League of Cities indicates that 54% of respondents expect expenditures to outpace revenues this year. "Our surveys show a steady deterioration in local government finances in recent years," says a spokesman.

Behind the tightening squeeze on states and cities is the economic slowdown. Last year, for example, state and local corporate tax receipts posted a painful and unexpected decline of over 7%. At the same time, the federal government has been reducing its grants-in-aid to localities, just as the need for spending on education, health care, prisons, police protection, and infrastructure is intensifying.

The result is an accelerated effort to cap spending and boost revenues. With some 27 states either raising taxes or cutting spending to meet balanced-budget requirements, tax hikes at the state level hit $4.9 billion in the fiscal year that ended in June, and Miller estimates that at least $5 billion more is in the pipeline for the year ahead. Meanwhile, DRI/McGraw-Hill expects real spending growth at the state and local level to slow to 1.2% from 3.3% in fiscal 1990.

The belt-tightening efforts of state and local governments may avert financial distress, but the economic implications are hardly reassuring. Projects to repair the deteriorating infrastructure, improve the environment, and upgrade education are likely to be cut back or deferred. And fiscal restraint in Washington will be reinforced by similar measures in the hinterland, increasing the chances of an economic downturn.

WHY JOBLESSNESS MAY POP BACK UP IN THE FALL

Were seasonal adjustment problems a significant cause of June's mysterious drop in the unemployment rate? Economist Robert H. Chandross of Lloyds Bank in New York notes that the youth labor force of 16-to-24-year-olds normally increases sharply by several million at the end of the school year as many students graduate or seek summer jobs. This traditional summer surge would result in a huge jump in unemployment were it not for the Labor Dept.'s seasonal adjustment process, which seeks to remove seasonal influences from the data.

This summer, however, government demographic projections indicate that the growth in the youth labor force will be sharply curtailed, resulting in 930,000 fewer young workers either employed or seeking jobs than was the case last summer. And that implies that faulty seasonal adjustment, by assuming a far larger influx of young people into the labor force than is actually occurring this summer, may be painting a false picture of declining joblessness.

If this is the case, the distortion may be washed out in September, when seasonal factors will assume a larger drop in the labor force than actually occurs as students return to school. And at that point, the official unemployment rate could jump significantly.

IS THE MARKET RISING ON A TIDE OF PRODUCTIVITY?

The most intriguing aspect of the June employment report, says economist David D. Hale of Kemper Financial Services Inc., is what it seems to imply about productivity. Since industrial production rose at a 4.8% annual rate during the second quarter despite a further decline in factory employment, Hale concludes that there was probably a sharp rise in manufacturing productivity for the second consecutive quarter.

Because productivity has a big effect on profit margins, the June employment report may help to explain why the stock market has been so resilient recently despite growing recession concerns. "If productivity has bottomed out," explains Hale, "profit margins could expand without pushing up inflation." And while service-sector productivity hasn't yet begun to enjoy the recovery apparent in manufacturing, Hale thinks that the recent slowdown in service-sector employment growth could well presage such an improvement in 1991 if it continues.

UNLOADING S&L PROPERTIES WON'T BRING HOUSING DOWN

Fears that sales of foreclosed properties held by the Resolution Trust Corp. will torpedo the housing market are highly exaggerated, says Barbara Allen of Kidder, Peabody & Co. She notes that such properties—36,000 at last count—constitute only about 0.04% of the total existing U. S. housing stock and equal less than 1% of the recent annual sales pace of new and existing homes. Moreover, only six states—Colorado, Oklahoma, Louisiana, Texas, Arizona, and Florida—account for over 80% of the RTC's property holdings.

Allen points out that there is no correlation between the concentration of RTC properties in a state and the current health of that state's housing market. Indeed, while the latest quarterly sales rates of existing homes showed declines in Louisiana, Colorado, and Arizona, sales of such homes posted good gains in Oklahoma, Texas, and Florida. "Many of the properties in the RTC's portfolio were foreclosed on years ago," observes Allen. "The only thing new about them is that now it's the federal government that is trying to sell them." ■

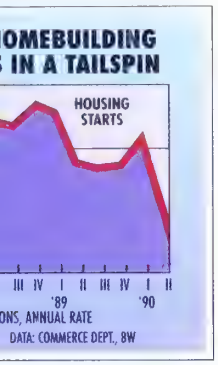
30, 1990

BY JAMES C. COOPER AND KATHLEEN MADIGAN

HIS IS ONE THUNDERHEAD HAT HAS NO SILVER LINING

he U. S. economy is flying low in stormy weather—and running out of fuel. Washington's latest batch of economic data shows that the expansion is dy in trouble, and there are few prospects that s will improve in the second half of 1990.

e ingredients for better times just aren't there. In- n is no lower than it was a year ago and neither are est rates. Monetary policy at the Federal Reserve d still looks restrictive. Fiscal policy won't stimulate ness. Foreign demand is slowing down. And domes- emand is fading in virtually all sectors.



Consumers are pulling back as job and income growth slow down. Sagging profits are curtailing business outlays for buildings and equipment. The fiscal fix needed by the federal government and many states means less public spending and higher taxes. And homebuilders are reeling because of weak sales and stingy banks. Housing starts fell for the fifth con- tive month in June, to an annual rate of 1.18 million. dropped starts last quarter to the fewest since —when the economy was in a recession (chart).

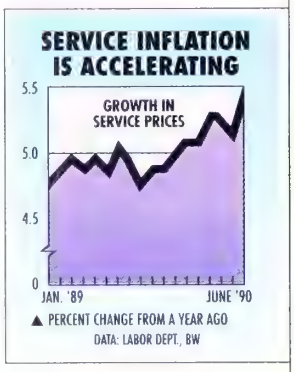
e manufacturing sector offered a glimmer of ngth last quarter as factory output picked up nicely. even here, souring demand spoils the outlook. Some e rebound is simply due to inventory rebuilding that not carry production very far in the second half as as factory orders remain stagnant.

E FED'S OVE MAY T MEAN UCH

It certainly seemed the time had come for the Fed to loosen credit. And on July 13, Fed Chairman Alan Greenspan put the money supply where his mouth was. Only day before, he gave the markets unprecedented no- that the central bank was about to ease monetary y (page 16). The Fed then lowered the federal funds —the charge on interbank loans—to 8% from 8¼%. is probably isn't enough to help. Such a small move 't change the downbeat outlook for interest-sensitive s such as housing and autos—or for the economy in eral. In fact, credit conditions may well remain un- nged. Greenspan says the cut was a technical adjust- t, made because stricter regulation of lending had tened credit more than was justified by the 8¼% . The Fed says it was simply restoring the old policy. e Fed still fears inflation—and justifiably so. Labor costs continue to rise at a pace that's certain to keep the pressure on. Inflation in producer prices shows some abatement, but services keep fueling consumer inflation.

The consumer price index rose 0.5% in June, much faster than the 0.2% advance in May. During the past year, the CPI has risen 4.7%, but big swings in energy prices have distorted the trend. Excluding food and energy, the core rate of inflation has actually drifted a bit higher during the past year, to 4.9%, compared to 4.5% during the previous year.

The biggest reason: Service inflation—about half of the CPI—remains intractable (chart). Service prices rose a steep 0.7% in June, pushing them up by 5.5% during the past year. The cost of medical care, up 9.2% from a year ago, is the chief culprit, but the pace of many other service prices has accelerated as well.



The trend in producer prices remains encouraging, but even here the latest news is not all good. Prices of finished goods rose only 0.2% last month, following a 0.3% increase in May. But price declines in food and energy accounted for the modest gain. Prices elsewhere rose a more disconcerting 0.6%, the largest increase in a year. And the jump was fairly broad.

Another danger: Higher energy prices are on the way. Saudi Arabia's July 12 agreement with OPEC to cut oil production sent crude oil prices climbing sharply.

The large increase in prices for finished goods, excluding food and energy, may reflect the recent pickup in operating rates. Industry used its production capacity at a rate of 83.5% in June, up from its January low of 82.7%. Operating rates fell through most of last year.

Most of the recent increase in capacity utilization has occurred in advanced processing; capacity use in primary processing is more depressed. That could account for some of June's pressure on prices of finished goods. Prices at the earlier stages of processing remained tame.

LOOK FOR MORE FACTORY LAYOFFS

Even though energy prices might rise and food prices might gain a bit from the drought in the Southeast, the outlook for producer price inflation in the second half is still sanguine. That's because the industrial sector is unlikely to maintain the new momentum it showed in the second quarter.

Industrial production rose a healthy 0.4% in June, af-

ERIC HOFFMANN/BW

ter a 0.6% gain in May. Output in manufacturing was even stronger, up 0.5% in June, after May's 0.8% advance. Factory output last quarter posted the largest gain since the first quarter of 1989, but much of that strength was a rebound in auto production from exceptionally weak levels earlier in the year.

Moreover, a lot of that higher output is ending up in business inventories, which rose 0.4% in May—the largest increase since November. Inventory growth accounted for most of last quarter's gain in real gross national product. But without stronger demand in the second half, which seems unlikely, some of those inventories will have to be worked off. That means production cuts.

EXPORT GROWTH KEEPS SLOWING

Foreign demand is manufacturing's major support. But export growth has slowed since its heady pace of 1988.

In May, exports rose 2.3%, to $32.8 billion, or 7% above a year ago. That's down from the 11% pace of 12 months earlier, but some of the slowdown reflects falling prices for food exports. Shipments of manufactured goods are up 10% so far this year, compared with 13.7% in the same period of 1989. Exports of capital equipment have been especially strong.

Still, overall trade remains firmly in the red. The merchandise trade deficit stood at $7.7 billion in May, not much different from the $7.3 billion of April, which was revised upward from a previous estimate of $6.9 billion.

Imports rose by 2.9% in May, to $40.5 billion. The good news is that slack domestic demand has nearly flattened yearly growth in imports. But dependence on foreign oil remains a problem even with a sluggish economy.

Oil shipments have grown by 10.7% so far this year, to an average of 8.6 million barrels per day. According to the American Petroleum Institute, 49% of the oil used in the U. S. in the second quarter came from foreign sources, up from 46.7% a year ago. So far this year, America's dependence on foreign oil is at a record high.

For the next few quarters, Europe seems to offer th best export prospects. The weakness of the dolla against the major European currencies, plus prospect for an economic boom in a unified Germany, shoul mean rising demand for U. S. goods across the Atlantic

CONSUMERS AREN'T EAGER TO SPEND

The economy's biggest problem could b weak consumer spending. The latest dat on retail sales showed a livelier pace o spending in June. Sales increased 0.5%, t $147.8 billion, after posting declines in each of the previ ous three months. But the June rebound probably isn' signaling a consumer comeback.

Unusually wet weather in May in many parts of th country probably caused consumers to postpone shop ping until June. That partly explains why departmen store sales fell 2.2% in May but rebounded 2.8% in June

The quarterly averages of re tail sales smooth out some o the whipsawing. They show that sales growth has slowe this year. Total retail sales were up 2.3% for the year ended i the second quarter, down fron their 5.8% pace of the first quar ter and from the 6.3% gain i the second quarter of 1989.

Moreover, all of last quarter' gain came from higher prices Real retail sales actually fell 1% over the past yea (chart). They haven't done that since the last recession

Since the slowdown extends beyond credit-sensitive items such as cars and furniture, the weakness suggests that interest rates aren't the only factor keeping con sumers from spending. Slower job growth and worries about the expansion's future are also holding back shop pers. Without fuel from consumers, the economy coul easily crash in the second half.

THE WEEK AHEAD

FEDERAL BUDGET

Monday, July 23, 2 p.m.
The federal government will probably post a $12.4 billion deficit in June, according to economists surveyed by MMS International, a division of McGraw-Hill Inc. A deficit in June is unusual because quarterly income taxes are paid then. Rising outlays and falling receipts of corporate taxes are pushing the deficit to a total in excess of $210 billion for fiscal 1990. In June, 1989, the federal budget recorded a $7.8 billion surplus.

EMPLOYMENT COSTS

Tuesday, July 24, 8:30 a.m.
Compensation costs for workers in private industry likely increased in the second quarter by about 5.6% over last year. That's up from the 5.2% pace of the first quarter and 4.8% at the end of 1989. Faster growth in benefit costs, which rose 7.2% in the first quarter, probably offset a slowdown in wages and salaries, which were up 4.2% for the year ended in the previous quarter.

DURABLE GOODS ORDERS

Wednesday, July 25, 8:30 a.m.
New durable goods orders probably increased a small 0.3% in June. Orders rose 4% in May, following a 4.1% drop in April. Volatility in demand for transportation equipment has caused swings in the data for durable goods orders. Excluding autos and aircraft, new orders have been in a slump for a year.

GROSS NATIONAL PRODUCT

Friday, July 27, 8:30 a.m.
The MMS consensus is that real gross national product grew at an annual rate of about 1.6% in the second quarter, little changed from the 1.9% clip in the first. However, almost all of last quarter's gain was concentrated in an accumulation of nonfarm inventories, which had fallen in the first quarter. Real final demand was probably unchanged, after rising at a healthy 4.4% annual rate in the first quarter. Inflation as measured by the GNP implicit price deflator probably slowed to a 4% annual rate, from 5.4% in the first quarter. The report will include the Commerce Dept.'s annual benchmark revisions of the GNP data.

IT WAS THE SPIRIT OF COMPROMISE VS. THE SPIRIT OF SAAB. COMPROMISE LOST.

There's an automobile facility in hättan, Sweden, that may well be the d's most hospitable climate for . Because it's one of the least hospi- for committees.

There, in the birthplace of Saabs, no s built by consensus. It's built by neers who enjoy one of the most un- l mandates in the industry:

Ignore convention, automotive cate- s – everything but the human beings drive it. Then, starting from scratch, l a car around *them*.

The benefits of such unorthodoxy vident in all Saabs, none more so than new 9000S.

Powered by the largest engine Saab built, the 9000S is a true European ts sedan capable of all-day runs at e-digit, test-track speeds.

Computers constantly adjust the bustion cycle for peak efficiency, aided ab's patented Direct Ignition System. its emission control system is vigi- in maintaining exhaust cleanliness.

The result is an engine, and a car, that reconciles the often mutually canceling human needs of fun and responsibility. And tops it all off with extra helpings of practicality.

The 9000S is the only European import that meets EPA specifications as a "Large" car based on its interior dimensions.

Driving enthusiasts are even spared the painful choice between a sports sedan and a station wagon. That choice is made by the simple act of folding down the rear seat – a gesture that creates enough cargo space for a full size refrigerator with all the groceries needed to fill it alongside. In an enclosure designed to protect perishables more precious than those that come in shopping bags.

Like all Saabs, the 9000S has energy-absorbing crumple zones front and rear. The passenger compartment is enveloped by a rigid steel safety cage, and a driver's-side air bag is standard, as is an anti-lock braking system. As a result, according to the Highway Loss Data Institute – an organization of over 250 insurance companies that monitors safety through actual accidents – 9000-Series Saabs are the safest cars in their class. Safer than Volvo, safer than Mercedes-Benz.

"Make a list of the desirable design features in today's road cars," summed up one automotive journalist, "and it would describe the Saab."

All of which begs the obvious question, why settle for a less complete list, or a less complete car? And the even more obvious question, why pay more for that dubious honor?*

Your Saab dealer has the car that makes such questions beside the point.

We invite you to visit at your convenience and test drive the Saab 9000S.

SAAB

WE DON'T MAKE COMPROMISES. WE MAKE SAABS.

MSRP: $25,495, excluding taxes, license, freight, dealer charges and options. Price subject to change. © 1990 Saab-Scania of America, Inc

JULY 30, 1990

WHY THE FED IS ON EASING STREET

IS GREENSPAN FEELING A CREDIT CRUNCH—OR A POLITICAL SQUEEZE?

Has Alan Greenspan caved in? For weeks, the Federal Reserve Board chairman silently resisted intense White House pressure to boost the sluggish economy. Then, he boldly telegraphed an imminent cut in interest rates while immediately trying to soft-pedal the move as a purely technical adjustment. The Fed, Greenspan argued, needed to "offset" banks' rising credit standards, which were inadvertently making money too tight.

Bemused Fed-watchers, who can't find the data to back up Greenspan's credit-crunch argument, wonder whether he is simply throwing up a smokescreen to cover a political retreat. Many conclude that the Fed chairman, eager for reappointment in just 13 months, has decided to play ball with the Bush Administration. "Alan has so overplayed his hand that control of monetary policy has been taken away from him," says H. Erich Heinemann, the chief economist for Ladenburg, Thalmann & Co. "The Administration has won."

AT THE FED: "THE HIDDEN MESSAGE IS . . . THERE'S NO HIDDEN MESSAGE"

But don't jump to conclusions. Inflation-wary bond traders, quick to flee from any signs that the Fed is overheating the economy, reacted evenly to the easing move: The rate on 30-year Treasury bonds dropped a mere 0.11 of a percentage point before steadying at 8.45%. The stock market, which would like to see the economy juiced up, sprinted briefly beyond the 3000 mark on the Dow Jones industrial average—and then dropped 18 points on July 18 when it, too, realized that the Fed wasn't opening the monetary sluices. That same day on Capitol Hill, where Greenspan appeared before the Senate Banking Committee, Democrats and Republicans alike praised Greenspan for the Fed's move.

Approaching his third anniversary on the job, Greenspan has established a solid record of independence. The chairman jealously guards his credibility with the markets. Fed insiders insist that Greenspan should be taken at his word. Since spring, the central bank has fretted over a strange slowdown in the growth rate of M2, the Fed's favorite measure of money (chart). In his intensive contacts with bankers—and dissection of their balance sheets—Greenspan told the senators that he saw "certain fundamental signals" that banks are squeezing credit too tightly. The extra pressure brings the risk of recession "up a shade."

The response—a tiny rate cut to head off a problem on the horizon—was pure Greenspan. The number-crunching Fed chief believes he not only can fine-tune the economy but also that he has the duty to do so. "The hidden message," says one official, "is that there's no hidden message."

INFLATION-SHY. In the short run, the motives behind Greenspan's latest move make little economic difference. By easing slightly—dropping the rate on federal funds, or overnight bank reserves, from 8.25% to around 8% on July 13—the Fed signaled that it's more inclined to cut rates than to raise them. If that step was purely technical, as Greenspan maintains, the Fed isn't likely to force rates down rapidly. But it won't tighten soon, either.

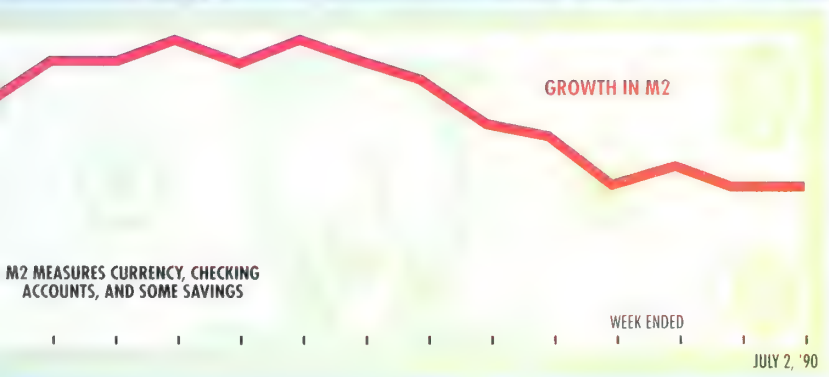
Over the next two years, however, a Fed eager to help the Bush Administration by boosting growth could do plenty of damage to the U. S. economy. The Fed might jump-start the flagging economy for now. But with unemployment at a relatively low 5.2% and factories running at 83.5% of capacity, any boomlet would surely fuel inflation, which shows no sign of abating. Indeed, consumer prices rose 0.5% in June. Long-term interest rates—which are controlled by the markets, not the Fed—would be bid up by inflation-shy investors. That, in turn, would dampen investment and check recent improvements in manufacturing productivity. Foreign creditors wouldn't hold rapidly depreciating dollars—or buy U. S. Treasury bonds. The resulting convulsion could bring on a recession much worse than anything the Bush Administration has to fear right now.

Still, the Administration has continued to pound on the Fed for lower interest rates. Even Commerce Secretary Robert A. Mosbacher joined the chorus. And Congress got into the act when Senate Republicans summoned Greenspan to lunch for what a Hill aide calls a "respectful but firm" discussion of their economic concerns.

Greenspan made his move on July 12. Testifying on deposit-insurance reform before the Senate Banking Committee, he took a vague question about banks' credit standards as his opening. Greenspan announced that the Fed "would have to consider offsetting" banks' tighter loan re-

THE FED'S CALL TO ACTION: SLUMPI MONEY GROWTI

GREENSPAN'S CURRENT TERM ENDS NEXT SUMMER



DATA: FEDERAL RESERVE, DRI/McGRAW-HILL

ments "with an ease in monetary y." It was a blatant signal of the next cut in the federal funds rate.

thing in the recent economic data ed to warrant the change in policy. reenspan put it: "There is still no evi- e . . . that the economy is tilting over."

Nor has the core rate of inflation, which the Fed singled out for special concern as recently as May, fallen. Producer prices, excluding food and energy, rose a sharp 0.6% in June.

Conspiracy theorists on Wall Street and in Washington speculate that the Bush Administration is using the resignation of Fed Vice-Chairman Manuel H. Johnson Jr. to turn up the heat. Council of Economic Advisers member John B. Taylor, an aide to Greenspan in the Ford White House, stands ready to take Johnson's seat. But the Administration has let weeks go by since Johnson quit, raising the question of whether it wants to stick Greenspan, whose term ends in August, 1991, with an heir apparent as vice-chairman. "They're telling Greenspan, 'We can make you a lame duck tomorrow,' " says Heinemann.

FREE-FOR-ALL? That may be. But there are strong reasons to believe that the Fed was doing what Greenspan said when it cut rates. Although the Fed had held the cost of funds steady for a near-record six months, banks weren't using those reserves to promote loans and thus create money. The squeeze on M2 was equivalent to the Fed's raising the federal funds rate from 8.25% to 9.6%, says Robert J. Barbera, chief economist at Shearson Lehman Hutton Inc. "The banking system was tightening more than the Fed wanted," Barbera says.

At the Fed, evidence began to mount that M2 was slowing because commercial bankers had moved beyond prudent lending toward out-and-out restrictive lending. Boston Fed President Richard F. Syron was stunned when a top banker told him that even West Coast loan officers seem to be afraid to make loans. "I was used to hearing that in New England, but things are supposed to be better in the West," Syron says. Bankers were starting to demand bigger loan margins, another sign of caution, Greenspan says. Regulators don't want to encourage a credit free-for-all, but the Fed figured a small rate cut could offset the banks' caution. By calling the move technical, Greenspan tried to dampen hopes that this was the first of a series of cuts. But the Fed is monitoring credit "day by day," he says—a sign that the Fed will act again if lending doesn't pick up.

If the Fed's move was indeed a political gift to the Bush Administration, the recipients didn't act very thankful. All Treasury Secretary Nicholas F. Brady could say was: "As the minister said, 'All donations gratefully accepted.' "

But the good news for the Administration may be yet to come. The Fed has shown a new willingness to act against an anticipated threat to slow-but-steady growth. If White House and congressional budget negotiators can deliver on a deficit-cutting deal, the Fed is poised to respond with the big prize: a big, swift decline in rates. Then, the Bush Administration could discover how valuable an independent Fed can be.

By Mike McNamee, with Howard Gleckman and Catherine Yang, in Washington

FOREIGN INVESTMENT

CONGRESS TAKES A STICK TO FOREIGN INVESTORS

Playing to voters' fears, it proposes a stack of new curbs

The unease keeps turning up in opinion polls. Americans just don't like the idea of foreigners buying up everything from Rockefeller Center to the corner 7-Eleven. But try as they might, Democrats haven't found a way to turn the issue to their advantage.

That failure isn't keeping the Democrats from trying, however. Swirling around Capitol Hill is an assortment of legislative proposals designed to curb foreign investment, or pierce its veil, in such industries as high technology and cable TV. And as the 1990 congressional campaigns heat up, the pace of attacks on foreign business is accelerating. Explains Democratic strategist James Margolis: "There is an underlying sense that there has been too much foreign investment and we are in danger of losing control of our economic future."

The most sweeping proposal comes from Representative Doug Walgren (D-Pa.), who would allow the White House to block any foreign takeover of a U. S. high-tech company that "threatens national security." The President could also demand that foreign buyers not export technology or cut off U. S. suppliers. The Bush Administration, which opposes the measure, would be required to compile a list of essential technologies to be protected. The proposal has drawn the opposition of advocates for foreign companies. Walgren's bill, says Washington attorney Christopher Wall, "would create a blacklist."

CABLE CONTROL. Then there's Edward J. Markey (D-Mass.), chairman of the House telecommunications & finance subcommittee, who already has pushed through his panel a bill that extends the ban on foreign ownership of broadcast outlets to cable TV systems. Meanwhile, the House has moved to deny foreign-owned companies relaxed antitrust rules on joint production ventures. The bill, by House Judiciary Committee Chairman Jack Brooks (D-Tex.), bars companies with more than 30% foreign ownership from participating in the ventures.

And House Majority Leader Richard A. Gephardt (D-Mo.) thinks he has hit a political nerve by attacking overseas tax evaders. "Before we start raising taxes on the middle class, as some advocate, I believe we should look to profitable U. S. operations of foreign-controlled corporations that don't pay any at all," says Gephardt. He cites Internal Revenue Service figures that show foreign-owned companies in the U. S. in 1986 reported $550 billion in gross receipts, but showed $1.5 billion in tax losses.

> The Democrats also want to tax profitable U.S. operations of foreign companies that now get off scot-free

Gephardt's Foreign Tax Equity Act would give IRS agents new powers to monitor U. S. units of multinationals and would impose a capital gains tax on the sale of the holdings of some foreigners. Supporters claim the measure would raise $1 billion over five years. While the Gephardt proposal isn't likely to move on its own, the measure could end up in a tax package that will likely emerge from current budget talks.

Nor are the Democrats stopping there. The political involvement of overseas investors is also under assault. House Democrats plan to introduce a bill to bar U. S. subsidiaries with more than a 20% foreign ownership from forming political action committees. Under pressure from Senate Finance Committee Chairman Lloyd Bentsen (D-Tex.), the Federal Election Commission has begun to draw up its own rules on political activity by foreigners. The Congressional Research Service says 118 corporate PACs with "significant" foreign equity contributed $2.8 million in the 1988 campaign, or 5% of all corporate donations.

NEVER MIND. On this ground, however, the Democrats may want to tiptoe: They already receive nearly half of all corporate PAC money, a fact that may moderate some enthusiasm for new laws. Democratic Presidential contender Michael S. Dukakis learned how the foreign investment issue cuts both ways in 1988. Visiting a Missouri auto parts factory, the Massachusetts governor launched into a spirited attack on foreign ownership of American industry. He got puzzled looks from the workers for, as his embarrassed aides later learned, the plant was Italian-owned.

The problem is that until Washington finds a way to save more, America can't afford to stop binging on foreign capital. As a result, the Democrats' latest attempt to capitalize on the foreign investment issue sounds good, but is fraught with political and economic paradox.

By Paul Magnusson in Washington

EIL BUSH: NOW, THE S&L MESS AS A 'NAME AND FACE'

h's conduct at Silverado could do lasting damage to the Republicans

oon after Neil M. Bush joined the Silverado Banking board in 1985, he saw the first red flag unfurl. up-and-coming Denver thrift, beset roblems with its aggressive com- ial real estate and development , fired its accountants. Although 0-year-old Bush was a financial neo- e, he sensed something was amiss. deposition last December, the Presi- s son admitted to ral investigators the flap with the or made him "un- ortable."

should have gone his gut. Instead, nd the nine other rado directors e few waves as agement dragged the S&L, leaving axpayers to pick up billion tab for the t's collapse.

t the costs don't there. Bush's deci- to stick around do lasting damage s party and to his r. The President's has come to person- the thrift debacle. neone close to the ident allows the dal to have a name a face," observes ical scientist Ste- Hess of the kings Institution.

e furor over the nger Bush won't pate soon. He faces ges from the Office Thrift Supervision e). And now, the ral Deposit Insur- Corp. is consider- multimillion-dollar against the Silverado board to re- some of the losses. The OTS may give Bush embarrassing publicity, an FDIC suit could really hurt: Bush d be personally liable for damages.

TH GRIP.' An FDIC case would also ong the GOP's political agony. For ths, both parties had traded only jabs over the S&L issue. Republicans d that Democrats on Capitol Hill re- edly went to bat to protect the thrift industry. Democrats, in turn, charged that the GOP's lax policies set the stage for the thrift scandal. But in early July, Neil Bush decided to lash out at his critics, giving Democrats an opportunity too good to pass up. Now, says a top GOP strategist, "we are embraced in a death grip, and both sides have to keep fighting or get killed."

Bush's high-profile media offensive, including a turn on a Denver radio call-in show, backfired by keeping him and Silverado in the headlines. "The White House knows they have a real problem with this," says the GOP strategist.

The President's son retreated after a week of attempted spin control. But soon he'll return to the limelight. Public hearings on the OTS administrative charges are scheduled for September. And if the FDIC files suit, public outrage is likely to build. The FDIC is considering explosive charges that Silverado directors knew about—and could have prevented—some of the questionable deals that led to the thrift's costly failure.

OTS documents show that Bush and the other directors supported management policies that hid growing losses. Starting around 1986, Silverado required some major customers to use the proceeds from loans or sales of real estate to Silverado to buy stock in its holding company or to purchase its shaky securities and real estate. The stock sales appeared to boost capital reserves, and the asset sales wiped losses off the books.

OVER HIS HEAD? In one instance, Bush backed Silverado's $16.5 million purchase of two real estate projects from Bill L. Walters, a Denver developer and Bush business associate. Walters plowed $7 million of the proceeds into the stock of Silverado's parent. Bush told the OTS he was aware of that and other, similar arrangements and voted to approve the transactions. "I do recall that there was a lot of business done on that basis," he said. He claimed Silverado's managers told the board that regulators had approved the deals. The OTS denies giving the O.K.

Bush clearly was in over his head. The President's son, who has an MBA from Tulane University, started his career in 1980 in Denver, acquiring oil leases for Amoco Corp. In 1983 he founded his own oil-exploration company. Serving as a thrift director, he figured, could give him the business contacts and financial expertise he needed to build his oil-drilling concern—and lay a solid foundation for any political aspirations he harbored. "I was wondering," Bush told investigators, "whether it would be a good experience for me."

It wasn't. And not for him alone. Republicans and Democrats will be firing away at each other until November. Much to the GOP's discomfort, the name Neil Bush figures to be the Dems' favorite weapon.

By Catherine Yang, with Douglas Harbrecht in Washington

SPIN CONTROL: BUSH'S MEDIA OFFENSIVE INCLUDED A RADIO TALK SHOW IN DENVER

THE CHARGES AGAINST NEIL BUSH

- Improperly voting to approve loans to Denver developer Bill Walters and purchases of real estate from him. At the time, Walters was either a business partner in Bush's oil-prospecting company, JNB Exploration, or a creditor of JNB. Bush denies any conflict of interest
- Failing to disclose fully his potential benefit from a $900,000 line of credit for a joint venture involving Denver developer Ken Good and JNB. Bush didn't vote on the loan which may violate rules against lending to insiders. Bush says the loan was never supposed to be used so there was no violation
- Not fully disclosing his business relationship with Good when the board approved a modification of Good's $32 million loan, with Bush abstaining. Around the same time, Good pumped an additional $3 million into JNB. Bush says Silverado had a better understanding of Good's finances than he did

DATA: OFFICE OF THRIFT SUPERVISION

DEALS

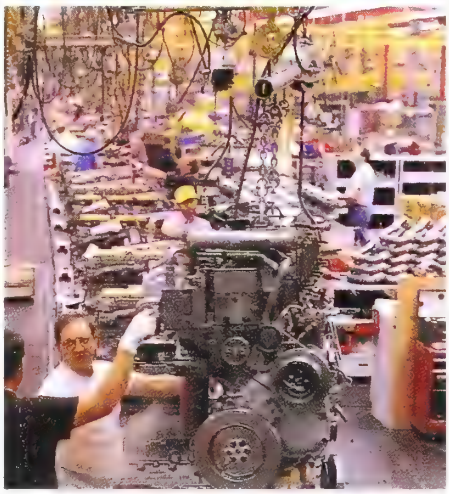
TURNING CUMMINS INTO THE ENGINE MAKER THAT COULD

Ford, Tenneco, and Kubota may reverse the company's fortunes

Cummins Engine Co. Chief Executive Henry B. Schacht hasn't delivered on many promises lately. While Cummins spent more than $1 billion to retool its truck-engine plants and develop new products during the 1980s, the Columbus (Ind.) company has lost $163 million since 1986. Debt soared as Schacht borrowed heavily. By 1989, the onetime darling of Wall Street had become a target for raiders.

The dismal performance hasn't kept Schacht from making more promises. On July 16, he ended a desperate, year-long search for capital by selling a 27% stake in Cummins to Ford, Tenneco, and Japan's Kubota for $250 million. The money will allow Cummins to pare debt and pick up badly needed new business. In return, Schacht's new partners get alluring Cummins technology and profits, if the truck market should rebound. Crows Schacht: "This is a clear vote of confidence."

Indeed, the deal may be exactly the tonic Cummins needs. Schacht says he'll cut debt this year to $301 million, or 27% of capital, down from $473 million last year. Interest payments should fall 36%, to $33 million annually, freeing up cash for new investment. This year, Cummins plans to spend $200 million to continue research on meeting tough 1991 and 1994 truck emission standards. "This means we won't have to compromise our development efforts," Schacht says.



ON THE LINE AT CUMMINS: A YEAR-LONG SEARCH FOR CAPITAL IS OVER

Cummins' new investors also offer important new business. Cummins plans to build Kubota's light diesel engine in Europe (box), a move that could boost Cummins' sales by $100 million. And Ford Motor Co. says it will purchase Cummins diesels for its medium-size trucks. The move, says Nomura Research Institute heavy-industry analyst David Gardner, may add $27 million to Cummins' bottom line—no small change for a company that last year lost $6 million on revenues of $3.5 billion.

PUZZLED. For the $100 million it paid for 10.8% of Cummins' common stock, Ford gets exclusive access to the company's truck-engine technology. Ford produces engines for its medium-duty trucks in Brazil, at a unit it wants to sell. Also, Ford hasn't invested in research to meet the 1994 emission standards. Now, Ford can forgo the $300 million expense of designing a new engine and escape the headaches of trying to control costs amid Brazil's hyperinflation.

The other two investors reap fewer obvious benefits. Tenneco Inc., which also invested $100 million, takes 35,000 engines a year that are produced jointly with Cummins and puts them in farm tractors built by Tenneco's JI Case unit. Tenneco says it wants to ensure Cummins has the cash to keep upgrading those engines. After all, Case's revival provided 17% of Tenneco's $1.3 billion operating income last year. "We think their problems are temporary," Tenneco Chairman James L. Ketelsen says of Cummins. "They're the leader in the field."

WHY KUBOTA HITCHED ITS TRACTOR TO CUMMINS

Japan's Kubota Ltd. may have the smallest stake in the big deal with Cummins Engine Co., but the $5.2 billion farm-equipment maker just might have the boldest agenda. With interests also in pipes and machinery, the Osaka company wants partners with complementary products, plus a strong base in Europe and the U. S. Cummins seems to fit the bill. "This is a strategic alliance," declares Yutaka Murata, the general manager of Kubota's engine division.

The company's diesel-engine business—part of a group that contributes 38% of its net sales—should provide the base for many joint development and production ventures with Cummins. And it's on the battleground of Europe that the corporation hopes to gain most from its new alliance. It now exports engines to a tractor subsidiary in Spain and a construction-machinery operation in West Germany. Kubota figures that by using Cummins' manufacturing base in Britain, the two companies could start joint productio 30,000 engines yearly by late 1992.

The current strategy has sev prongs. From humble beginnings ma cast-iron pipes for water systems, manufacturer has diversified widel the mid-1980s, it went on a shop spree for American startups in the s conductor and computer industries ble). That initiative won Kubota rep as a Japanese pioneer of high-tech n ers. Its wholly owned computer su iary stands to gross $100 million in year ending next March. An 21% stake in MIPS Computer tems Inc. has more than dou in value since MIPS went p last year.

But Kubota's touch has n ways been golden. Partner an earlier U. S. deal have the company, accusing it o phoning technical know from a joint venture with a unit in California. The dis dates from 1986, when Ku paid $20 million for 25% of

KUBOTA'S STATESIDE INVESTMENTS

Company	Product Line	Investment Millions
STARDENT COMPUTER	Graphics workstations	$71
CUMMINS ENGINE	Heavy-duty diesel engines	50
MIPS COMPUTER SYSTEMS	High-speed, RISC-based computers	39
AKASHIC MEMORIES	Hard disks	24
MAXOPTIX	Erasable optical-storage disks	17
EXABYTE	Computer tape drives	7.5
C-CUBE MICROSYSTEMS	Image-processing circuit boards	6.2
RASNA	Computer-aided engineering software	5

DATA BW

alysts remain somewhat puzzled by ta's $50 million investment. Al-h Kubota needs emissions-control ology, its small tractors don't use nd of engines Cummins builds. For Kubota says it wants to use Cum- excess capacity in Britain to build es for its European operations. heavy-equipment consultant Frank redi: "That's a relationship that will some time to develop."

far, it looks like a good bargain for holders, too. Although the deal l the amount of outstanding stock 5%, to 14.9 million shares, it in-ed book value 18%, to $46.74, by ating debt and a preferred stock Wall Street took notice, sending nins' stock jumping on the news. e only immediate losers are Cum- founders, the Millers. They paid h raider Hanson PLC $72 million ear—a $5 million premium—for its take. Schacht is buying back those s, which were converted into high-ng securities, for $67 million. But y spokesman William I. Miller is fast: "We think Cummins will pay or us down the road."

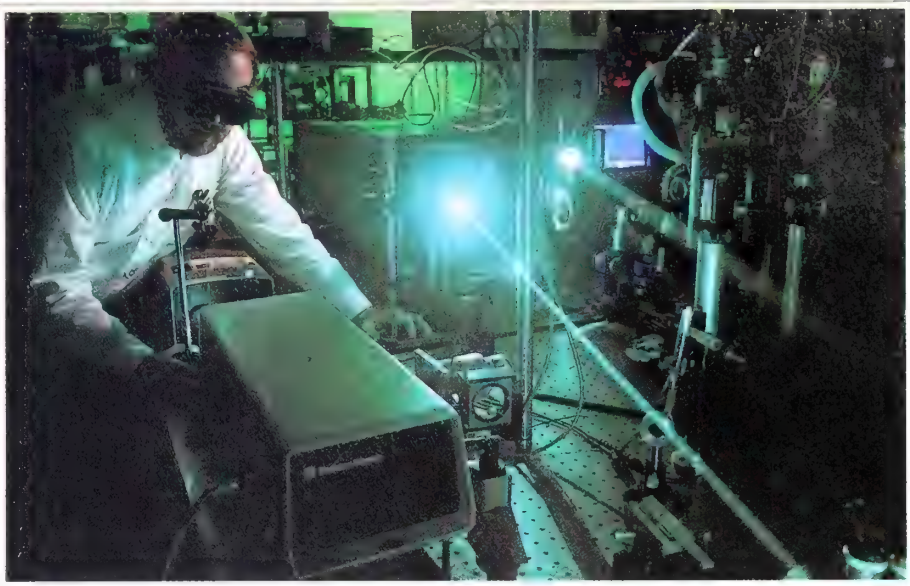
t's the gamble each party is mak-For years, Schacht has promised in-rs that his heavy spending would big profits. So far, he hasn't deliv- Says one industry analyst: "Inves- like Ford, Tenneco, and Kubota let him get away with disappoint-eturns." Who knows? Maybe that's the kind of motivation Cummins to get into gear.

y Kevin Kelly in Chicago, with Mark n Houston and bureau reports

puter Corp. As sales slumped last the Japanese parent pumped in ney. Then, in September, Ardent ith cash-strapped Stellar Comput-ton, Mass., and Kubota wound up of the newly named Stardent Inc. But the merged outfit has dud. Moreover, Stardent's two co- are seeking $25 million in dam- Kubota, claiming it went back on e not to build supercomputers in in competition with Stardent, a e Japanese vehemently deny. believes that its $70 million Star-e will give it the leverage to re-original deal to allow manufactur-sales in the U. S. The company s American partners for the dis-says that unless the Japanese win ver some local production and y may withdraw their support for

that would give Kubota a black con Valley, the company shows no backing off from its aggressive ategy.

Gross in Tokyo, with bureau reports



GTE RESEARCH FACILITY: THE DEAL MAKES IT THE SECOND-BIGGEST CELLULAR-PHONE POWER

MAYBE CONTEL SHOULD HAVE PHONED ITS BANKERS

GTE picked it up for a song—even with Contel's heavy debt load

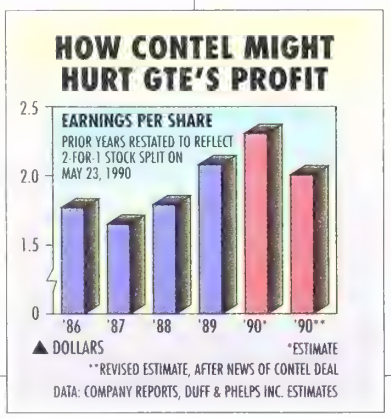
Charles Wohlstetter, the octogenarian chairman of Contel Corp., considers himself an ace dealmaker. He boasts that his $3.1 billion company is composed of nearly 700 smaller shops amassed through his bargaining savvy. The 80-year-old founder is fond of noting that he once bought 38 companies in a single day. And in early July, he left his investment bankers behind as he hashed out the $6.2 billion sale of the Atlanta-based phone company to GTE Corp.

But this time, maybe Wohlstetter should have asked for a little help. GTE Chairman James L. "Rocky" Johnson is raking in a stunning line of assets, including Contel's highly efficient digital-phone network and 24 million potential cellular-phone subscribers. In negotiating a stock swap without his investment bankers, Wohlstetter is giving Contel to GTE for close to a 40% premium over its preannouncement market value but nearly 40% less than what some shareholders maintain Contel is worth. "GTE stole the company," contends Frederick A. Moran, president of Moran Asset Management and one of Contel's largest shareholders. "It's pathetic."

Neither Contel nor GTE is commenting on that assertion. But since the transaction is a tax-free exchange of stock, the disparity between some investors' estimates of Contel's underlying value and Wohlstetter's price may be somewhat smaller. And while Contel shareholders may dislike the deal, analysts predict they'll approve it—it's the only game in town. GTE and Contel are considered an unusually good fit, so analysts are betting against the emergence of a rival bid.

INSIDE STORY. Those looking for a glimpse behind the scenes of the Johnson-Wohlstetter talks can get it from an unlikely source: A little-noticed passage in a suit filed on July 13 by the Securities & Exchange Commission. The suit, which doesn't implicate the chairman, alleges that unnamed people used inside information to trade in Contel securities before the GTE deal was made public.

Neither company is talking about the negotiations, but in late April or early May, according to the SEC, Johnson sounded Wohlstetter out about a merger. But Wohlstetter played a game of chicken. He withdrew from the talks in late May and then, with Contel stock trading near a 52-week low, announced that he would pay down the company's load of debt by



PHOTOGRAPH BY SETH RESNICK CHART BY JOB DOYLE/BW

selling 14.5 million new common shares.

Faced with the possibility that a deal for Contel might suddenly become more expensive, Johnson met with Wohlstetter on July 5. They reached a tentative agreement, setting the exchange price of 1.27 shares of GTE stock for one share of Contel. According to the SEC and other sources, GTE informed its investment bankers at PaineWebber Inc. within the next two days. But Contel did not tell Goldman, Sachs & Co. or Salomon Brothers Inc., underwriters of its now-abandoned equity offering, until July 10—five days after Johnson and Wohlstetter struck their deal.

There's nothing illegal about a hasty deal, but it may have been costly to Contel shareholders. Phone companies can go for as much as 8 to 10 times their cash flow. Yet, assuming GTE is paying the going rate for cellular, about $200 a potential subscriber, the implicit price of Contel's phone operations is just 5.5 times cash flow, estimates analyst Lap Lee of Gordon Capital Inc.

BRAINS AND BRAWN. With Contel, Johnson has nabbed operations that will turn GTE, based in Stamford, Conn., into the country's fifth-largest holding company of local phone operations. With 48.5 million potential subscribers, its cellular operations rank second, behind McCaw Cellular Communications Inc. Contel's efficient operations yield 37% more profit per phone line than GTE's, according to James J. Stork, a vice-president at Duff & Phelps Inc. Says one regulator in California, where both companies have operations: "In this marriage, Contel is the brains and GTE is the fat."

Still, even the relatively low price of the deal doesn't eliminate the risk to GTE. That's one reason why GTE stock has dropped about three points, to around 28, since the deal was unveiled. Cellular's inherent risk and the new obligation of servicing Contel's $3.3 billion in debt will swallow nearly 15% of GTE's 1990 earnings, says Duff & Phelps's Stork (chart, page 21). And Contel's 20%-plus return on equity from telephone operations may well drop closer to GTE's 15.3% return from the same business as the company's larger size draws closer regulatory scrutiny. Says Carl R. Danner, an adviser to California's Public Utilities Commission, where the merged company will have more than one-fifth of its telephone business: Its returns will "have to get in line with GTE."

That may make the ride bumpy at first. But then, Charles Wohlstetter's cut-rate price for Contel should give Rocky Johnson the comfortable cushion he'll need.

By Todd Vogel in Stamford and Chuck Hawkins in Atlanta, with bureau reports

AIRLINES

EASTERN MAY SOON BE FORCED INTO MOTHBALLS

With indictments for poor maintenance looming, its bailout hopes droop

The news couldn't have come at a worse time for Eastern Air Lines Inc. Just as talks between the bankrupt carrier and suitor Northwest Airlines Inc. were gaining steam, details of a Brooklyn (N. Y.) federal grand jury's criminal probe of falsified maintenance records began to emerge. Suddenly, any joy Eastern officials may have gotten from a recent uptick in passenger loads was dashed. And the bad news only intensifies pressure on Eastern's creditors' committee, which may have to decide whether to sell the airline's remaining desirable assets or hold on for an outright sale of the Miami company.

CLEANING DAY: CAN THE CARRIER BUFF UP ITS TARNISHED IMAGE?

Eastern did its best to explain that allegations of unperformed maintenance are two years old. But such scary accounts are apt to cripple the efforts of court-appointed trustee Martin R. Shugrue to polish Eastern's public image. With Eastern already mired in Chapter 11, any thinning of traffic from fading public confidence will only deepen the airline's losses and erode what little value it still holds for creditors.

The news also strengthens the hand of Northwest Chairman Al Checchi, who met recently with leaders of the pilots' and machinists' unions. While Shugrue would love to sell the airline outright, Checchi's eyes are on Eastern's 53 gates and a maintenance facility in Atlanta.

WAITING GAME. Checchi can afford to wait. Sources close to Northwest say he has no intention of taking on Eastern's persistent labor headaches, not to mention as much as $800 million in unfunded pension liabilities. "If they insist on a merger, he'll just walk away from the deal," says Duane E. Woerth, Northwest's pilots' union chief. That leaves Eastern's creditors with a choice between standing behind Shugrue or getting the best deal now from Checchi. The Atlanta hub would be a plum. Eastern's 30% market share would help boost Northwest's lackluster southeastern traffic and give Northwest badly needed maintenance capacity. Sources close to the talks say Northwest also has its eye on as many as 80 of Eastern's 170 planes, mostly its newer Boeing 757s and a smattering of older jets. Checchi would probably have to buy the bulk of the assets and sell those he doesn't want. That would leave creditors and lawyers to haggle over the corporate shell. Eastern's parent, Continental Airlines Holding Inc., could get stuck with part of the pension liability, depending on how much the Pension Benefit Guaranty Corp. can glean from any asset sales.

For Shugrue, it's a race against time. Eastern's recent fare discounting helped fill 61% of its seats in June—up from 54% in May—but it needs to fill 80% of them to break even. Shugrue told creditors on July 13 that he may need at least $50 million in cash from Eastern's dwindling, court-supervised escrow account by late August. The creditors will probably wait until Aug. 15 when American Airlines Inc. makes the last payment on its $329 million purchase of Eastern's Latin American routes. With cash in hand, they may demand a sale.

That leaves the Brooklyn grand jury. Sources close to the probe say that as many as 10 current and former Eastern employees may be indicted. If the airline were to plead no contest, some still could face jail. Even for an airline used to misery, that would be a bitter end.

By Gail DeGeorge in Miami, with Russell Mitchell in Minneapolis and Seth Payne in Washington

MD-11 JET: THE COMPANY'S BEST HOPE AND BIGGEST CASH DRAIN

N A WING AND A PRAYER T McDONNELL DOUGLAS

en with 17,000 layoffs, its debt could hit $3.5 billion by 1991

he overhaul last year of McDonnell Douglas Corp.'s Douglas Aircraft unit was supposed to be simple. ennially strapped Douglas, which kes commercial jets and military nsports, had long been a poor cousin McDonnell's lucrative fighter busi- s. But by establishing work teams cutting four management layers, irman John F. McDonnell figured he ld finally spark profits at Douglas to set the parent company's heavy de- dence on defense.

Vrong. Radical tactics such as the re- val of 5,000 managers, who were then wed to reapply for only half as many s, spawned confusion and slammed rale. That slowed already sluggish duction rates, spurring a $222 million rating loss at the unit last year and 7 million in losses for the first six nths of 1990. Now the company is in moil. Concedes Chairman McDonnell: e have made mistakes."

MMED UP. A string of errors, in fact, stretched the finances of the $14.6 ion aerospace giant to the limit. The ult: On July 16, McDonnell announced t it will slash up to 17,000 jobs this r in a desperate bid to conserve cash. e company couldn't afford the reorga- ation turmoil after management over- ching swamped the parent company h five simultaneous money-eating air- ft development projects—both de- se and commercial. Now, Pentagon s promise to limit work that could help bail out the company. And the cash crisis casts a shadow over McDonnell's promising MD-11 commercial jet program.

McDonnell's problems are grave, indeed. On July 18, the company announced it made a mere $57 million in the second quarter on sales of $4.1 billion. But even that razor-thin profit is misleading: Include the company's own estimates of possible write-offs on two overbudget military planes and McDonnell actually showed a net loss of $109 million. Meantime, to cover development costs for the MD-11 and four military airplanes, McDonnell's debt is expected to soar to $3.5 billion by the end of the year—almost double what it was just two years ago. Moreover, a tax law change will require McDonnell to pay down roughly $500 million in deferred taxes in the next few years.

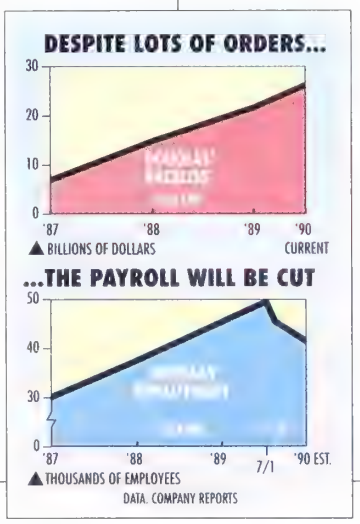
Can McDonnell pull out of the nosedive? Besides the layoffs, McDonnell is slashing capital spending by $175 million to conserve cash. Advertising, travel, and the use of consultants will also be cut. Even the parking lot shuttle at Douglas' sprawling complex in Long Beach has been axed. Although the idea has since been abandoned, some MD-11 customers were approached about upping the deposits they've already paid for airplanes on order. All told, McDonnell wants $700 million in annual savings.

'ALL OUTGO.' While the MD-11—a widebody descendent of the DC-10—is McDonnell's best hope, the plane's $2 billion in costs this year are also the company's most immediate cash drain. Douglas already has 157 firm orders for the plane and plans to deliver 5 MD-11s this year and 40 more in 1991. At $100 million a plane, the MD-11 program may eventually deliver a tremendous payoff. But already the program is at least six months behind schedule. And until the plane clears expensive certification tests, which are often delayed, the company has to finance its inventory of 5 completed planes and 12 others on Douglas' huge assembly line. Explains Chairman McDonnell, who earlier this year renegotiated his bank lines after soaring borrowings threatened to violate previous debt covenants: "It's all outgo on the MD-11 and no income."

The Douglas Div. will suffer 8,000 of the 17,000 job cuts, which should help ease the financial strain (charts). But "you have to wonder how large a level of cuts can be made before it affects Douglas' ability to deliver airplanes," says Bateman Eichler, Hill Richards analyst Lawrence Harris. McKinsey & Co. consultant Robert D. Paulson worries Douglas may end up "paying a lot of people to work on their resumes instead of working on airplanes."

And it may get worse. While McDonnell's F-15 fighter, Apache helicopter, and Harrier jump jet are all scheduled to lose Pentagon support after next year, the company is struggling to make money on some of its ongoing programs. McDonnell and partner General Dynamics Corp. are over budget on the Navy's A-12 fighter. McDonnell has so far refused to take a charge for the cost overruns while it tries to get the Pentagon to pick up the tab. But since General Dynamics on July 18 announced a $450 million write-off on its half of the program, many analysts believe McDonnell will also have to pay dearly by yearend. The possibility of such a financial jolt makes it all the more crucial that the MD-11 pay off soon. If it doesn't, McDonnell's panic may be just beginning.

By James E. Ellis in St. Louis and Eric Schine in Long Beach, Calif., with bureau reports



PHOTOGRAPH BY SANDER/GAMMA LIAISON; CHART BY RAY VELA, BW

IN A ROLLER-COASTER QUARTER, THESE TWO DIDN'T QUITE MAKE THE CREST

AT&T can fall back on long distance, but Computer Associates may take a real beating

Investors are forewarned: The second quarter—uneven in general—won't be kind to AT&T and Computer Associates. But the similarities end there. The phone giant—and rivals—can expect a respite from price competition. The forecast for CA isn't nearly so bright.

COLLECT CALL FROM AT&T

American Telephone & Telegraph Co. says it doesn't try to milk extra profits from its long-distance business when the rest of the company is hurting. In light of recent events, though, AT&T customers might greet that statement with some skepticism.

It was a coincidence, but on June 28, just one day after AT&T first projected lower earnings for the second quarter, it announced a long-distance rate change that should contribute $200 million a year to profits. Although cast as a rate cut, the change represents a decision to focus on profits instead of market share. That's good news for MCI Communications Corp. and U. S. Sprint Communications Co. MCI reported an 18% gain in second-quarter earnings, and Sprint's parent, United Telecommunications Inc., suffered a 55% drop after special charges. The last thing they want is a rate war with AT&T.

In its early warning to the Street, AT&T also predicted difficulty in achieving its goal of 10%-to-12% earnings growth for the year as a whole. It cited soft product sales, and analysts mentioned heavy startup costs for the surprisingly successful Universal credit card.

BIG SAVINGS. The extra $200 million annualized profit from the rate change amounts to a healthy 7% of last year's $2.7 billion in earnings. It's a neat trick, considering that what AT&T actually did was cut rates by $300 million, effective July 1. But that sum, large as it is, represents only a portion of the $522 million that it's saving as the result of a regulatory ruling that reduces the payments long-distance companies must make for connections to local phone networks. The rest goes to the bottom line.

Top executives in AT&T's independent long-distance units, which cover business and consumers, deny they would veer from their plans just to help the overall company's short-term results. "[AT&T Chairman] Bob Allen has not come to us and said, 'I want you to increase your profit to cover any shortfalls in other units,'" says John R. Smart, president of AT&T Business Communications Services.

Whatever the reason, though, AT&T is not interested in cutting rates any more than it has to. Its market-share erosion is slowing, even without aggressive price action. "Yes, it's a price-sensitive market, but customers are making decisions not just on price alone" in business long-distance, says Smart. "While it's not 100% clear, it does appear that we have in fact made inroads at stabilizing our share in several of our product lines."

A big reason for the progress on market share is the behavior of MCI and Sprint. Wall Street knocked United Telecom stock down 11 points, to 38¼, in the two days after the company announced its sharp profit drop. Sprint indicated its fix will be to improve sales, marketing, and advertising—not to cut rates to the bone. While not in the same fix, MCI has been taking a similar tack.

'TOUGH PULL.' The diminished price pressure allows AT&T to set prices at or near the maximum permitted under price-cap regulations that the FCC imposed a year ago. AT&T followed its rate action with a 2% price increase on two business services, Pro WATS and

AT&T'S VANISHING RATE CUT

STEP ONE Federal Communications Commission orders local phone companies to cut $1.1 billion from their connection charges to AT&T and other long-distance carriers. AT&T alone saves $522 million

STEP TWO AT&T pockets $200 million of its savings instead of passing them along to customers. This is permitted under year-old price-cap regulations

STEP THREE Smaller long-distance carriers also see a reduction in connection charges. Following AT&T's lead, they pocket some of their cut. Net cost to customers: about $300 million

DATA: BW

A PREVIEW OF SECOND-QUARTER PROFITS

The early returns for the second quarter seem to indicate that many companies turned in pretty snappy earnings gains. But some of those results obscure underlying weaknesses. Take Coca-Cola. Its U. S. carbonated beverage volume was up a bare 1%, and orange juice was actually down. And the ill-starred MagiCan promotion was an expensive flop. Stellar returns in Europe made it easy to overlook the dreary U. S. numbers: Coke sales in Spain alone, measured in gallons, grew an eye-popping 42%. Elsewhere, FMC managed slightly higher per-share profits, though they fell in absolute terms. The trick: A buy-in program reduced the number of shares outstanding.

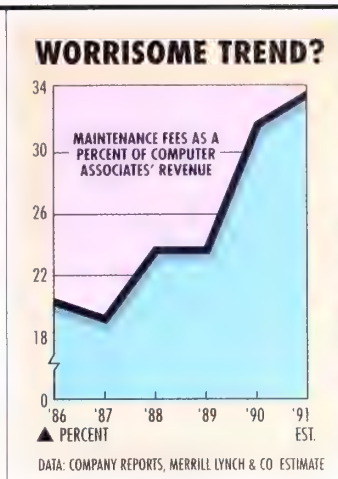
ABBOTT LABORATORIES	$1,5
ALCOA	2,6
AMERICAN CYANAMID	1,2
BOISE CASCADE	1,0
BRISTOL-MYERS SQUIBB	2,4
BURLINGTON RESOURCES	4
CASTLE & COOKE	7
CBS	8
COCA-COLA	2,7
CONSOLIDATED PAPERS	2
COORS (ADOLPH)	4
CORNING	6
CPC INTERNATIONAL	1,4
CSX	2,0
DOW JONES	4
ETHYL	6
E-SYSTEMS	4
FEDERAL PAPER BOARD	3
FMC	9
FOOD LION	1,2
FRUIT OF THE LOOM	4
GENERAL DYNAMICS	2,6
GENERAL ELECTRIC	14,4
GOODRICH (B. F.)	6
GRACE (W. R.)	1,6
GRAINGER (W. W.)	4
GTE	4,5
HILTON HOTELS	2
HONEYWELL	1,5
IBM	16,4
INTEL	9
INTERNATIONAL PAPER	3,2
KIMBERLY-CLARK	1,6
LILLY (ELI)	1,2
LOUISIANA-PACIFIC	5

ware Defined Net-
k, effective July 27.
or AT&T, earnings
wth of 10% to 12%
year is "going to be
ough pull," says
rge David, general
ager of CCMI/
raw-Hill, which ana-
s phone rates and
s. The softness in
s of computers,
ches, and other gear
ed to the economy's
kness and is likely to
inue for the rest of
year and beyond, he
. If AT&T has one
g going for it on the earn-
front, it's that its long-
ance customers are more
doing their part.

By Peter Coy in New York

LTY VISION

world's biggest software
pany had an image prob-
Last fall, Charles B.
g, Computer Associates
rnational Inc.'s chairman,
ded he had to alter the
eption that he buys rivals
oost revenue without re-
d to how they fit in with



CA'S WANG: PR DIDN'T HELP

CA's product line. "Clients kept asking me, 'What's your game plan?'" Wang says.

To help answer that, he hired Adams & Rinehart Inc., a unit of New York public relations and advertising giant Ogilvy & Mather. The result was something called CA90s, a software "architecture" describing how CA's vast array of products are part of a grand technological vision.

But CA's big picture hasn't looked so good since July 12, when the company said its first-quarter revenue would be sharply below last year's $303 million. Within hours of the announcement, CA's stock fell below 10, losing more than one-third of its value. Analysts now say that CA could, on July 24, come dangerously close to reporting its first quarterly loss since going public in 1981.

SPLITSVILLE. The day after its bombshell, CA and its PR counsel "decided to part company," says Richard A. Russack, who headed the CA90s project at Adams & Rinehart. Neither he nor CA will explain the split.

What is certain, though, is that CA's sales and marketing squad spent too much time explaining the details of the CA90s plan and too little time closing deals. At a time when CA's new software sales are already weak, that's asking for trouble. The bulk of CA's growth lately has come from maintenance fees (chart). That's cause for worry: If sales don't pick up, there will be less and less software to maintain if old customers switch to other suppliers.

This past quarter might be an aberration. But maybe not. Customers may be balking because the CA90s plan doesn't make sense to them. And CA's grand plan needs a massive development effort to make its products look alike and act in concert. Good PR alone won't be enough—and now CA can't even count on that.

By Evan Schwartz in New York

Profits $ mil.	% chg. vs. 1989	Margins 1990	Margins 1989
$240.2	+13	16.0	16.1
161.9	−43	6.0	10.3
108.4	+11	8.8	8.5
23.0	−69	2.2	6.9
417.3	+21	16.8	15.4
51.4	+67	12.1	7.4
38.9	+11	4.9	5.1
138.0	+16	16.7	15.4
409.9	+18	15.0	14.8
38.1	−13	16.0	18.3
25.1	+49	5.3	4.0
66.9	−4	9.9	12.0
95.0	+14	6.5	6.6
109.0	−16	5.3	6.6
34.9	−28	7.9	11.0
57.1	+12	9.5	8.5
22.6	+16	5.2	4.9
34.6	−33	10.9	16.6
54.8	−1	5.5	6.0
40.8	+28	3.2	3.0
37.3	+45	8.4	6.8
−240.0	NM	NM	2.3
1,088.0	+12	7.6	7.2
34.9	−34	5.5	8.4
51.3	+15	3.2	3.0
32.1	+6	6.5	5.8
363.8	+11	7.9	7.6
38.2	−9	14.0	15.8
92.4	+54	6.0	4.0
1,410.0	+5	8.5	8.8
170.7	+72	17.6	13.3
185.0	−19	5.7	7.7
80.4	−21	5.0	7.3
274.4	+26	22.4	22.0
38.0	−21	7.6	9.2

	Sales $ mil.	% chg. vs. 1989	Profits $ mil.	% chg. vs. 1989	Margins 1990	Margins 1989
MARRIOTT	1,764.0	+4	46.0	−16	2.6	3.2
McDONNELL DOUGLAS	4,119.0	+22	39.0	NM	0.9	NM
McGRAW-HILL	457.8	+7	37.2	−27	8.1	11.9
MCI COMMUNICATIONS	1,867.0	+17	177.0	+18	9.5	9.4
MEAD	1,228.9	+2	46.1	−26	3.8	5.2
MERCK	1,899.3	+20	470.2	+19	24.8	25.0
MERRILL LYNCH	2,868.5	−1	74.1	+13	2.6	2.3
MOTOROLA	2,715.0	+14	161.0	+5	5.9	6.5
NCR	1,605.0	+5	115.0	+5	7.2	7.2
PAINEWEBBER	787.9	+8	14.6	−3	1.9	2.1
PFIZER	1,495.7	+15	151.2	+11	10.1	10.4
PHILIP MORRIS	12,740.0	+12	948.0	+27	7.4	6.5
POTLATCH	321.2	+9	32.3	+26	10.1	8.7
RAYTHEON	2,346.0	+2	144.8	+8	6.2	5.8
REYNOLDS METALS	1,545.2	−8	103.0	−32	6.7	9.0
ROADWAY SERVICES	669.3	+9	22.8	−13	3.4	4.3
ROCKWELL INTERNATIONAL	3,126.0	−3	171.2	−4	5.5	5.5
RUBBERMAID	345.9	+4	32.5	+15	9.4	8.5
SAFEWAY	3,435.1	+5	23.6	+208	0.7	0.2
SCOTT PAPER	1,321.0	+5	74.6	+4	5.6	5.7
SCRIPPS (E. W.)	331.9	+3	−0.2	NM	NM	7.8
SERVICE MERCHANDISE	749.2	+5	1.2	−91	0.2	1.9
SHERWIN-WILLIAMS	611.4	+5	44.9	+16	7.3	6.6
SMITH (A. O.)	266.0	−1	12.5	+67	4.7	2.8
SONOCO PRODUCTS	420.7	+1	27.6	−4	6.6	6.9
SUNDSTRAND	404.5	+3	21.3	−44	5.3	9.6
TELEDYNE	882.1	−3	26.6	−19	3.0	3.6
TEMPLE-INLAND	587.4	+20	65.7	+24	11.2	10.8
TOSCO	577.5	+73	48.2	+72	8.3	8.4
TRW	2,100.0	+14	63.0	−10	3.0	3.8
UNITED TELECOMMS.	2,070.0	+12	40.6	−55	2.0	4.9
UPJOHN	806.5	+10	114.1	+21	14.1	13.0
WEIS MARKETS	318.4	+3	21.2	+3	6.7	6.7
WESTINGHOUSE ELECTRIC	3,175.0	0	252.0	+10	7.9	7.2
WILLAMETTE INDUSTRIES	491.6	0	43.6	−7	8.9	9.6

NM = not meaningful

DATA: STANDARD & POOR'S COMPUSTAT SERVICES INC

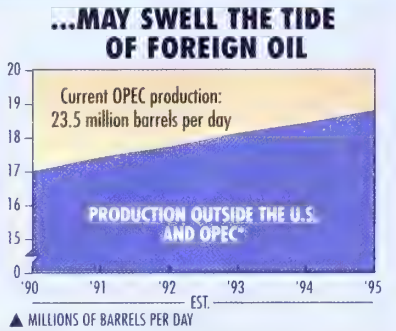
Commentary/by Robert Buderi

A GUSH OF FRESH CRUDE MAY DILUTE OPEC'S MIGHT

The story going into the July 25 OPEC meeting in Geneva is that members are primed to cut oil production and drive up prices. The cartel will be back in the driver's seat. After all, U. S. production is falling—and experts have been saying for years that other non-OPEC production is peaking. But wait: Evidence is mounting that the experts may be wrong.

From the North Sea to Africa and South America, oil-producing nations have eased once-restrictive tax laws to encourage investment by Big Oil. It's working. New figures show that spending on exploration and development (E&D) outside the U. S. and OPEC has grown steadily in the past four years. When this exploration pays off in production a few years down the road, some experts believe, falling U. S. output may be more than offset by a foreign supply of oil much richer than credited (charts). "Non-OPEC oil is just going to keep on increasing," says Massachusetts Institute of Technology economist Morris A. Adelman. And that means OPEC's long-predicted power surge will be blunted, he says, even though cartel members control at least two-thirds of the world's proven reserves. Furthermore, he adds, market forces will place downward pressure on prices at least into the 21st century.

DRILLING OFF THE COAST OF WEST AFRICA



DATA: PETROLEUM INDUSTRY RESEARCH FOUNDATION, WASHINGTON INTERNATIONAL ENERGY GROUP

* INCLUDING USSR, EASTERN EUROPE, CHINA

GLOBAL GLUT. While few buy the entire thesis, it's worth considering seriously. "There's no way you can get away from the very heavy reliance on the Middle East," says John H. Lichtblau, the president of the Petroleum Industry Research Foundation Inc. (PIRINC), "but there are factors developing which might mitigate the increase."

Conventional wisdom maintains the current glut will last until somewhere between 1990 and 1995, when non-OPEC production starts tailing off. In North America, that logic fits like a glove. Alaskan fields have slid into their inevitable decline. That falloff is aggravated by low prices that render costly deep-sea exploration unfeasible—and by environmental concerns that curtail offshore and arctic drilling. Since 1986, U. S. production has dropped 17%, or 1.8 million barrels a day, according to accountants Arthur Andersen & Co.

But North America is unique. Beginning in the late 1960s, many countries levied high taxes on E&D—payments that oil companies could live with when prices seemed bound for glory. When prices broke, however, the taxes grew onerous, and companies backed off.

Now, those nations have had a change of heart about high taxes. It's not just such generally prodevelopment countries as Norway or Colombia. The Soviet Union, the world's largest oil producer—and the oil outlook's wild card—is bringing in foreign help. Argentina and Mexico, with nationalized oil industries, may boost foreign ties. Even Algeria and Iraq, OPEC members long hostile to outsiders, are trying to attract foreign investment.

But most changes lie outside OPEC. The Andersen survey of 236 companies reports that E&D expenditures outside the U. S. grew from $13.2 billion in 1986 to $21.9 billion last year and now exceed spending in the U. S. A new PIRINC study shows a similar rise among the 14 largest oil companies. "Exploration activity is clearly moving abroad," Lichtblau says.

Increased foreign activity will pay off big, because the world is vastly underdrilled by U. S. standards, says Michael C. Lynch of the Washington International Energy Group. The *Oil & Gas Journal* reports that of the 913,060 producing wells in 1988, 612,448 were in the U. S. So, while the Energy Dept. predicts that non-OPEC production will drop after 1995, Lynch says output will climb at least until the year 2000, more than bucking the U. S. decline.

To contrarians, price blips resulting from OPEC moves are short-term phenomena. "There will always be downward pressure on prices, except when the market's going through a spasm," says Adelman. In this case, "always" means at least 10 to 15 years. So while OPEC production remains a critical factor, the cartel's shadow might not be quite so long as most people thought.

If managing local affairs from afar worked, there might still be a British Empire.

King George III and a few of his royal descendants would probably agree, some things just can't be run from a distance. A lesson from the history books that applies to working with provider networks in any multistate managed care program.

The last thing you need is to put down an employee revolt over a provider network that's here today but gone tomorrow

Because once there are contracts with local doctors and hospitals, someone needs to be there to manage the networks expertly. To understand what access means to people locally. To work face to face with doctors on the quality of care.

We know, because for the past 60 years we've had more experience managing provider networks than anyone else. Blue Cross and Blue Shield Plans are located in communities throughout the country, with experts who manage the local health care delivery system firsthand.

Experience has taught us that you can't build a cost effective provider network without being selective with doctors and hospitals. So we have contracting guidelines that consider their credentials, performance, and patient access.

And because we have over 15 million people who currently receive care under our national managed care programs, we have the leverage to maintain effective provider relationships. That gets us better cooperation in utilization management and quality assurance programs.

What's customary in New York isn't necessarily their cup of tea in Kansas City

All of which adds up to a program that delivers more cost effective health care through a provider network your employees can feel comfortable using. And our most recent managed care survey showed a member satisfaction rate of 95%.

But while managing local provider networks is our forte, our experience in organizing these networks into programs for over 100 major national employers is unparalleled.

With our managed care programs, your employees get efficient delivery of health care coverage, no matter where they live

So if your company has employees in more than one state, and you're looking for a specialist who can expertly manage your program across the country, just call 1-800-426-2583. After all, if management from a distance was such a good idea, we might all be taking tea in the afternoon.

Blue Cross Blue Shield.

In Business This Week

EDITED BY HARRIS COLLINGWOOD

BIG BLUE SCRAPS ITS TYPEWRITERS

▸ Chairman John Akers on July 16 warned that IBM's strong results at 1990's midpoint didn't guarantee a hot second half. "Much remains to be done," he said, after announcing first-half revenues of $30.7 billion, up 9.8%.

By midweek, Wall Street got a hint of what Akers was driving at: Analysts say IBM is negotiating a $3 billion leveraged buyout of its Lexington (Ky.) unit, which makes keyboards, typewriters, and printers. Those businesses no longer fit IBM's strategy, say analysts, although Big Blue invested more than $300 million in Lexington in the 1980s. A spokesman says only that IBM is considering "many options," and that the unit's 5,000 employees would be "treated fairly."

SPLICING TOGETHER BIOTECH FIRMS

▸ The biotechnology industry continues to consolidate. The latest evidence of the trend came on July 12, when Monoclonal Antibodies, a $9 million maker of fertility tests in Sunnyvale, Calif., and San Diego-based Quidel, a $13 million developer of tests for sexually transmitted diseases and strep throat, said they would merge. The deal, valued at about $64 million, calls for privately held Quidel to be wrapped into Monoclonal, which will continue as a public company.

PENNZOIL PUTS THE SQUEEZE ON CHEVRON

▸ Pennzoil Chairman Hugh Liedtke said he'll boost his company's stake in Chevron from 8.8% to 10% and step up pressure on the oil giant in what looks to be a long, nasty battle. Since Liedtke bought $2 billion worth of its stock in December, Chevron has bolstered its poison pill defenses and filed suit to stop what it claims is a thinly veiled hostile takeover attempt.

In several weeks of recent testimony, Chevron attorneys claim they uncovered evidence of hostile intentions on Pennzoil's part. Liedtke still claims he's merely looking for a good investment and a way to shelter the $2.6 billion windfall from his Texaco victory. All the while he has been blasting Chevron for its defensive maneuvers in what appears to be an attempt to force it to shed major assets.

RITE AID'S GRASS: DON'T TREAD ON ME

▸ Exoneration was a good start, but Rite Aid President Martin Grass, arrested last April on bribery charges, is after equal justice. On July 16, a Cleveland judge threw out the case against Grass and the company, saying there wasn't enough hard evidence to convict the drugstore executive. Not only that, said the judge, but the prosecution's own witnesses attested to Grass's innocence.

Now, Grass is out to nail the men who, he says, tried to make his name mud. Since he has been cleared, his lawyers can pursue the defamation suit filed in Ohio district court last year. Their prey: the state's pharmacy board official who claimed Grass bribed him with a $33,000 corporate check and promises of medical coverage. And, say Grass's lawyers, the Rite Aid president's prosecutor may have a new case to plead—his own.

GIMME A PINT OF SIAMESE CRUNCH

If Spot is getting a tad pudgy from all that Häagen Dazs you've been slipping him under the table, your grocer should have an alternative. Between the Eskimo Pies and popsicles, you'll find Frosty Paws, which its maker, Associated Ice Cream, calls "the world's first frozen treat for dogs."

Frosty Paws, a blend of whey, soy flour, and corn oil fortified with vitamins and minerals, is the pet project of Ohio State University animal science Professor William Tyznik. He tinkered on and off for three years at home, throwing ingredients into a blender until he came up with a mixture his five dogs would eat. Although the product is advertised as fit for human consumption, it's not the greatest people food. An Associated spokesman says that Frosty Paws "has a taste only a dog could love. It's like frozen pancake batter or wet cardboard. We wouldn't take a second bite of it."

WELLS FARGO ROPES A PRIZE HERD

▸ San Francisco banking powerhouse Wells Fargo sent shivers through its rivals to the south on July 17 by announcing it would buy up to 130 branches in the state from Great American Bank for $492 million. The San Diego thrift was under government orders to raise $350 million in capital by yearend.

In selling its best assets, Great American remains saddled with its Arizona branches, which have run into serious loan trouble. It also keeps stronger units in Washington and Colorado, as well as its loan offices. The deal, which needs regulators' approval, would give Wells Fargo, already strong in the north, 110 more branches in Southern California.

PILOTS' TALKS: UP IN THE AIR

▸ Contract talks with pilots at American Airlines and Delta have hit unexpected turbulence. The board of the Air Line Pilots Assn., representing some 8,500 pilots at American, tossed out its five-man negotiating team on July 11 and named six new bargainers. The new team includes union directors who favor a tougher stand against the company. Both sides will resume negotiations on Aug. 7.

At Delta, the pilots' team quit on July 12 after the company sought and received the aid of a federal mediator. The pilots' main goal in 18 months of talks has been to eliminate the lower pay scale for new pilots. The company says it needs the two-tier system to stay competitive.

Imagine what a Canon Color Laser Copier could do with a pie chart.

The Canon Color Laser Copier 200 ould do a lot for your business. And Digital Image Processing is the reason.

It reproduces graphics, slides and hotos with clarity comparable to rofessional printing. As well as letting ou digitally reduce by 50%, enlarge up o 400% or edit instantly.

And with automatic feeding and sorting functions, as well as a quick 20 black-and-white copies per minute, it's one color copier that's all business.

To find out more, make it your business to call 1-800-OK-CANON, or write us at Canon USA Inc. P.O. Box 3900, Peoria, IL 61614.

Canon COLOR LASER COPIER 200

The Digital Difference.

1989 "Manufacturer of the Year"

J&B in all the right spots.

J&B Scotch Whisky. Blended and bottled in Scotland by Justerini & Brooks, fine wine and spirit merchants since 1749.
To send a gift of J&B anywhere in the U.S., call 1-800-528-6148. Void where prohibited.

J&B Blended Scotch Whisky, 43% Alc. by Vol., Imported by The Paddington Corporation, N.Y., N.Y. © 1992

EDITED BY STEPHEN H. WILDSTROM

ITH THE GOP AWOL, AN BUSH WIN THE DEFICIT BATTLE?

's taken a long time, but President Bush and Democratic ongressional leaders finally seem to be making progress oward a meaningful budget deal. Unfortunately, even an ement at the top leaves lots of work to be done before a it-reduction pact can become reality. Both the White se and the Democratic leaders are bracing for a tough with the rank and file of both parties.

ouse Republicans, who view Bush's decision to open talks axes as a betrayal, hammered the point e on July 18. Meeting in a closed cau- they defied the White House by voting whelmingly to oppose a budget deal includes any tax increases.

EARS. The Administration tried for e days to head off the caucus vote. On 16, Budget Director Richard G. Dar- warned lawmakers that if they didn't e to a deficit-reduction deal, they would automatic across-the-board spending ctions of $100 billion under the Gramm- man Act. But the scare tactics fell on ears, and frustrated Republicans pro- ed to pass the antitax resolution any- Says one GOP operative: "It was a real arrassment to the President."

DARMAN: IGNORED BY REPUBLICANS

e GOP move left Democrats steaming. "To have one party e out and say revenues are off the table will cripple otiations," says House Majority Leader Richard A. Gep- t (D-Mo.). Adds a key congressional aide: "The problem ave is that the President does not have his troops in line." ue enough. But the spirit of bipartisanship isn't running deep on either side of the aisle. Liberal Democrats are anding soak-the-rich tax increases and Pentagon spending ctions far beyond what Bush will accept. And Senate ority Leader George J. Mitchell (D-Me.) has warned that he 't back a budget pact that includes a cut in capital-gains s without an offsetting increase in the top tax rate.

at set off a nasty Republican riposte. "We're mad as hell at George Mitchell and the Senate Democrats," fumes Representative Vin Weber (R-Minn.). "They've raised roadblocks repeatedly and not put one dime of spending cuts on the table." Adds Minority Whip Newt Gingrich (R-Ga.): "I'm not going to negotiate with someone like Senator Mitchell. I'm not going to let him buffalo me."

For all the vitriol aimed at Mitchell, House Republicans may be just as angry at Bush for cutting the ground out from under them. Most GOP lawmakers built their political reputations by opposing tax hikes. And many looked forward to picking up seats in the Senate—and at least holding their own in the House—in the November elections. Now, with Republican candidates losing their ability to campaign on no-tax pledges, GOP dreams of winning control of Congress are waning.

Bush and Darman have made matters worse by seeming to take GOP leaders for granted. The full bipartisan budget summit group hasn't met for weeks. Instead, the White House has engaged in a series of backroom negotiations with Democrats, leaving Republicans to look on in anger.

The President still seems to think he can get a plan through Congress with a majority of Democrats and only token GOP support. That's why Darman has concentrated his efforts on private meetings with House Ways & Means Committee Chairman Dan Rostenkowski (D-Ill.) and Senate Finance Committee Chairman Lloyd Bentsen (D-Tex.).

But the Democratic leadership can't deliver. Squeezed by angry liberals, the leaders will let an agreement die unless a majority of GOP lawmakers in both houses vote for it. And as the events of mid-July have shown, reaching an agreement at the White House is just a first step. Both the President and congressional leaders will have a lot more work to do before the deficit can be reduced—by even a dime.

By Howard Gleckman and Paula Dwyer

ITAL WRAPUP

TIN AMERICA

You thought you had heard the last of the *contras*? The U. S.-spon- ed rebels seemed to be finished en Violeta Chamorro ousted Nicara- a's Sandinista government earlier s year. But with Sandinista-inspired or difficulties posing a mounting eat to the Chamorro government, ne in the Bush Administration think time may be ripe to remobilize the els. "[Former President] Daniel Or- a seems to be making a very major to paralyze that country," says a ior White House official. The *con- s*, he argues, are "a force within the iety that could potentially help [Cha- morro] get support in the countryside." One big problem: The *contras* were never popular with Congress, which is unlikely to sanction their reactivation.

POLITICS

Opposing the Ku Klux Klan can make some strange bedfellows. On a recent visit to Shreveport, La., Energy Secretary James D. Watkins put in a good word for a prominent Democrat, Senate Energy Committee Chairman J. Bennett Johnston, who is up for reelection this fall. The Bush Administration has been distancing itself from Johnston's leading GOP opponent, Louisiana state senator and former Klan Imperial Wizard David Duke.

DOCTORS

Representative Fortney H. Stark (D-Calif.) and the American Medical Assn., the Gingham Dog and the Calico Cat of health policy, are at it again. Stark, chairman of the House Ways & Means health subcommittee, is pressing for legislation that would make all doctors take a recertification exam at least once every seven years. His purpose: to make sure physicians keep up with the latest developments in their field. The AMA and other medical groups blast Stark's bill as an unwarranted federal intrusion in professional affairs. About 75% of doctors currently take such tests voluntarily.

CHARLES BONNIGLER

GE CARVES OUT A ROAD EAST

But cleaning up Hungary's Tungsram will be a daunting task

George F. Varga was born and raised in Hungary. But even this onetime émigré was unprepared for what greeted him soon after he arrived back in Budapest last January to run Tungsram Co., the declining, state-owned light bulb maker General Electric Co. had just taken over for $150 million.

The bloated payroll and aging factories were about standard for Eastern Europe. But then came the books. Digging into Tungsram's accounts, Varga's team discovered piles of unpaid bills. Bulbs and other products that the company had reported as sold were piled up in warehouses. Worse, workers at some of Tungsram's 12 factories had been lining cartons of bulbs with rocks so they could collect bonuses for upping the volumes they were shipping. Such "shenanigans," says the veteran GE executive, accounted for half of Tungsram's $22 million reported profit last year.

BIG BET. Welcome to the world of Eastern European investing. As communism has faded in the former East bloc, 1,800 Western companies have rushed to Hungary to set up joint ventures in everything from automotive parts to advertising billboards. But few have as much riding on Hungary as GE.

For GE, Tungsram is more than a chance to get in on the East's rebirth. It is one of the biggest bets yet on using the East as a low-cost backdoor to the West. "To go after Western Europe—that's why we're there," says John D. Opie, GE's senior vice-president in charge of lighting. General Motors Corp. and Ford Motor Co. have also moved into Hungary to serve the West. But unlike Ford and GM, which already are giants on the Continent, GE is a midget in Europe's $2.5 billion-a-year lighting business dominated by Philips and Siemens' Osram unit (chart). Tungsram's 7% market share gives GE a ready-made springboard at a time when its competitors are busy consolidating their positions. Without Tungsram, "we'd be locked out," says GE Lighting's European marketing chief, William A. Woodburn.

In buying control of Tungsram, GE has taken on a living laboratory of socialism in transition. Tungsram's labor force will have to be slashed by thousands, and those who remain will have to learn how to think and work like their Western counterparts. On top of that, Tungsram's factories, computer systems, and management ranks will have to undergo a wrenching overhaul.

For all its shortcomings, Tungsram is top-notch by Eastern standards. It is perhaps the West's best test of how good Eastern European industry can be. GE figures it will need to invest as much as $50 million over the next four years to bring Tungsram up to Western standards. Others say the tab may reach $200 million.

Varga hopes to make GE's initial investment pay off by 1995 by introducing new technologies and higher-priced products, raising production of components Tungsram now buys partly from others, and boosting the two companies' Western European market share to 14%. The Western European increase will be essential to Chairman John F. Welch Jr.'s plan to remain a dominant player in lighting worldwide. Now No. 2 globally behind Philips, GE can't become No. 1 without a strong presence in Europe.

In taking over Tungsram, GE has inherited a hodgepodge of technology spanning many decades. Among Tungsram's factories, there's everything from Japanese-made computer-controlled machinery turning out car headlamps to 30-year-old assembly lines grinding out filaments. There also is a work force of nearly 18,000 employees whose productivity is one-seventh that of GE workers in the U. S. Yet Tungsram manages to compete. Some 70% of its $300 million in annual sales comes from Western Europe, the U. S., and other hard-currency markets.

A BRIGHT SPOT: TUNGSRAM HEADLAMPS ARE HIGHLY REGARDED

GE, which has tried to gain a toehold in the European lighting business for years, was attracted to Tungsram well before Eastern Europe's regimes crumbled. The two talked over a possible link-up in 1987, but nothing concrete began happening until 1988, when Tungsram's deteriorating financial straits forced its state owner to search for a partner.

To support its teetering economy, the Hungarian government had been skimming off larger and larger shares of the

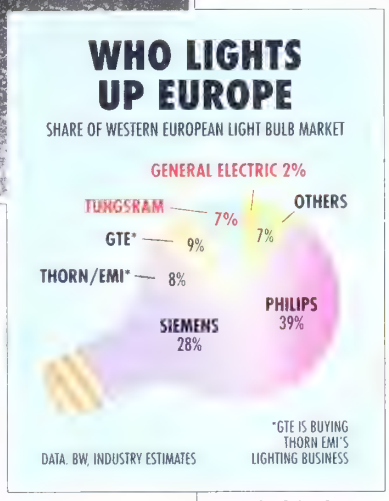
l-currency earnings of Tungsram other exporters. By 1987, taxes were ng 85% of Tungsram's earnings. ried about the cash squeeze, Tungs- 's biggest creditor, the state-con- ed Hungarian Credit Bank Ltd., in exchanged its $83 million in debt 91% of Tungsram's stock. Then it ed around and sold 49% of the com- for $110 million to a consortium of trian banks. That was the opening needed. At a Vienna restaurant one t last August, GE Lighting's Wood- n drew up a plan on the back of a kin and handed it to Tungsram's kers. By December, he had a deal. Austrians would sell their shares to the Hungarian bank. Then, GE ld buy 50% of the company, plus one e, take an option on 20% more, and ime management control.

ow, it's up to Varga, a 53-year-old nford University economics graduate fled the country in 1956, to make GE's deal bears fruit. Varga boasts Tungsram now produces a standard ndescent light bulb 30% cheaper n any Western competitor because a Hungarian lighting worker's $2,000 pay is a tenth of that in the U. S. Varga thinks this advantage will last as long as five years. But that depends on how adroitly he maneuvers through some treacherous cross-currents. GE's 18,000 lighting workers produce more than $2 billion worth of products a year, while Tungsram's similar-size work force only does $300 million. Thus, Varga will be pressed to slash jobs while bringing up the productivity of those remaining. But Tungsram's union is now demanding 30% higher wages, twice what GE is offering in return for higher output. Yet as Hungarian unemployment rises, Varga is under pressure to refrain from making it worse.

Varga expects 2,700 job cuts this year through attrition and early retirements. But outsiders say Tungsram will need to lay off more than half of its workers. Such talk has plunged morale to rock-bottom. Even Union Secretary György Selmeczy concedes that job cuts are inevitable. "We have to accept the fact that to have a working economy we need working companies," he says.

Tungsram's cost-cutting drive will be mitigated by other pressures. The price of Soviet energy, which accounts for about 12% of Tungsram's total costs, soon may shoot up 40% as Moscow slashes subsidies for its allies. And upgrading Tungsram's technology—in prewar days the envy of the global lamp industry—will be a tough slog. One of Tungsram's few coups is producing auto headlamps good enough to satisfy even finicky Mercedes-Benz and BMW. But auto lamps aren't enough. To build up Tungsram's strength in commercial and industrial lighting, which accounts for the bulk of GE's target market in Western Europe, GE will have to remake Tungsram in its own high-tech image.

BEST CHANCE. Varga also plans to slim down Tungsram by selling or consolidating some divisions. His job won't get any easier as GE's rivals shape up for the elimination of the EC's internal trade barriers in 1992. Seeking low-cost factories to maintain its lead, Philips recently took over Poland's leading lamp producer. Osram plans to add capacity by acquiring an East German producer this summer. And GTE Corp. and Thorn EMI PLC are expected to merge their European lighting divisions, creating the region's third-largest manufacturer. "The short-term advantage GE thought it had bought has sort of dissipated," says Greg Rice, president of GTE Sylvania Lighting Europe.



Many observers think GE's best chance of breaking into Europe's big leagues is to maintain Tungsram's low-cost brand. But GE's Woodburn has other ideas. He plans to double Tungsram's ad budget next year and gradually raise prices as GE helps Tungsram add more high-end products.

As GE tunes its strategy, all eyes are on Varga, who says he returned to his home town with "a bit of a missionary zeal to do this right." In plunging headlong into Hungary, "we're trying to mesh two cultures," he says. Making that culture clash pay off will be a bellwether test of the the East's potential.

By Jonathan B. Levine, with Gail E. Schares, in Budapest, Zachary Schiller in Cleveland, and bureau reports

FRANCE

THIS BUY-AMERICA BANDWAGON COULD HIT A FEW POTHOLES

Accor's deal looks solid, but other French giants may not be so lucky

It would seem that *tout va bien* for French hotel giant Accor. It will plunk down $1.3 billion for Motel 6, a profitable network of 554 budget motels in 42 states. Back in France, Accor already operates a similar chain of 150 motels called Formula 1, where rooms go for a folksy $20 a night. Now, Accor is set to expand its budget motel concept in the fast-paced U. S. market. "You cannot really succeed if you don't succeed in the U. S.," says Accor Co-chairman Paul Dubrûle.

Accor's purchase is another round in an aggressive French binge to "buy America." So far this year, French takeover deals in the U. S. total some $5.6 billion, up from $3 billion for all of 1989. The Accor purchase looks like a sure winner, but some are beginning to question the wisdom of the shopping spree. Warns Ron Littleboy, an analyst at Nomura Research Institute in London: "Some of these deals will be spectacular disasters."

PRICEY PICKINGS. The French are prepared to pay high prices for the right strategic target. Glassmaker Saint-Gobain is spending $1.9 billion for Norton Co., a maker of industrial ceramics. The deal will double the French company's ratio of debt to total capital, to about 60%. But Saint-Gobain was prepared to swallow the debt in order to top by 20% the hostile bid for Norton by BTR PLC, a British conglomerate.

Similarly, chemical giant Rhône-Poulenc paid $1.7 billion to buy a controlling stake in pharmaceutical maker Rorer Group Inc. of Fort Washington, Pa. Some analysts, however, claim that Rhône-Poulenc paid too much in order to stave off any counteroffers. Rhône has already spent $7.27 billion in acquisitions, mainly in Europe, in the past three years and had debt of $3.6 billion before the Rorer purchase.

WITH MOTEL 6, ACCOR WILL HAVE 2,000 BUDGET MOTELS IN THE U.S. AND FRANCE BY THE END OF THE DECADE

French companies can't afford such free spending for American companies, some analysts claim. They say that the current French acquisition binge in Europe—between $7 billion and $8 billion in the past six months—has already depleted war chests. Yet the deals keep coming. On July 17, Usinor Sacilor, the French steelmaker, announced its fourth acquisition in the U. S. steel industry: Edgcomb Corp., a steel broker that lost $12.5 million on sales of nearly $600 million last year.

Some of the recent French purchases appear to be in trouble. Tire maker Michelin, which paid $1.5 billion last October to buy Uniroyal Goodrich Tire Co., has just announced a sharp drop in profits and 2,600 job cuts. Although a weak tire market and a price war are mostly to blame, many industry experts believe that the Uniroyal buyout played a role.

Renault may also be headed for problems. The carmaker has just launched a $99 million tender offer for the 56% of troubled Mack Trucks Inc. that it doesn't already own (page 40). Although turning Mack around will be tough going, "we want a long-term presence in the U. S.," says Elios Pascual, a Renault executive vice-president. Another failure in the U. S. would be catastrophic for Renault's image. In 1979, the company bought into American Motors Corp., only to sell its holding eight years later.

NO-FRILLS RECIPE. Hachette, the French publisher, is confronting stagnant profits this year, in part because of its $1.1 billion purchase of American publishers Diamandis Communications Inc. and Grolier Inc. in 1988. A key problem: Diamandis' *Women's Day* is suffering from a downturn in ad revenues.

Yet if anyone can be successful with a U. S. acquisition, it's apt be Accor. In France, its no-frills Formula 1 motel concept has produced remarkably high occupancy rates of 80%. This carries to the bottom line. In 1989, profits were $134 million, up 30% from 1988, on sales of $3.6 billion. For 1990, Accor expects its profits to increase an additional 45%.

As part of the buyout agreement, Accor has agreed not to switch the management of Motel 6's parent, Dallas-based Motel 6 G. P. Inc. But it will continue an expansion move that should give Accor 2,000 low-cost motels in the U. S. and France by the end of the decade. The U. S. motels will eventually get advanced French cost-cutting technology: automatic teller machines that take credit cards and spin out combinations to room locks.

With its new deal, Accor becomes the world's No. 1 hotel chain, with 160,000 rooms. But then, thanks to its American acquisition, troubled Michelin can also claim to be the world's biggest in its field. As the Michelin venture shows, however, French companies may find it a lot easier to enter the American economy than to make it pay off.

By Blanca Riemer in Paris, with Jim Bartimo in Dallas

THIS YEAR'S TOP FRENCH BUYS IN THE U.S.

Acquirer	Target	Price Billions
SAINT-GOBAIN	Norton	$1.9
RHÔNE-POULENC	Rorer	1.7
ACCOR	Motel 6	1.3
USINOR	J & L Specialty Products	0.5
RENAULT	Mack Trucks*	0.1

*An additional 56% interest

DATA: BW

Intergraph Lets You Cross That Bridge When You Get To It.

At Intergraph we've spent the last 20 years helping companies span the chasm between the present and the future. Between what's necessary today and needed tomorrow.

We can do the same for you. With the most advanced interactive graphics workstations and software in the world. Products for electronic and mechanical design, engineering, and manufacturing; mapping and GIS; architectural engineering and construction; land-use planning; and electronic publishing. Products for hundreds of applications in private industry and government.

No matter where you're going, Intergraph will get you there. Give us a call toll free at 1-800-826-3515. Because there are more bridges to cross.

INTERGRAPH

Everywhere you look.

BRITAIN

A JAPANESE BEACHHEAD IN EUROPEAN HIGH TECH?

Fujitsu eyes Britain's ICL—and sparks fears in the EC

Europe's hopes of competing against Japan and the U. S. in high tech may soon get another dousing of cold water. Just weeks after Dutch electronics giant Philips stunned the Continent by predicting $1 billion in losses, a major stake in Britain's International Computers Ltd., Europe's fifth-largest computer manufacturer, could be sold to Fujitsu Ltd.

A deal with Fujitsu would mark the largest direct Japanese foray into Europe's computer industry. Fujitsu has long supplied ICL with chips and other critical technology for its mainframes, helping ICL quietly prosper while more celebrated companies such as Norsk Data, Nixdorf, and Philips floundered. But ICL's parent, communications equipment maker STC PLC, decided to seek a partner for the computer company because it lacked the geographic reach and research spending power to keep pace with industry leaders over the long haul. "The time to move is when you are strong, not when you're weak," says an STC executive.

UNSEEN PRESENCE. Now, after 18 months of meetings with potential partners, ICL is expected to announce a deal. Insiders and observers close to the company believe Fujitsu will give STC a mountain of cash in exchange for a big stake—perhaps even a majority share—in ICL. Although Fujitsu recently indicated an interest in buying a piece of the computer maker, it declines to comment. The announcement could come when STC releases its half-year results in August.

To be sure, the Japanese already have a large indirect presence in Europe: They supply many of Europe's major computer companies with mainframes, which the Europeans distribute under their brand names. Along with U. S. suppliers, the Japanese also dominate the chip market. But a more visible Japanese role in a European stalwart could fuel fears of a gradual Japanese takeover of the entire industry.

ICL's ties with Fujitsu date back to 1981, when a maverick new management team under Robb Wilmot decided the ailing British champion was too weak to stay in the technology race. Wilmot's drastic solution was to cut a deal with Fujitsu to supply ICL with its chips and processors. That left the British company to concentrate on software, marketing, and service. It now spends more than $180 million a year on Fujitsu gear, making it the Japanese company's largest customer.

Although ICL is sometimes derided as a "hollow corporation," its strategy has paid financial dividends. By 1984, when STC bought ICL, the computer company had just begun five straight years of rising earnings. Last year, ICL posted $262 million in operating earnings on revenues of $2.9 billion, accounting for fully half of its parent company's profit.

A link with Fujitsu wouldn't automatically give ICL more geographic spread outside of Britain. One ICL insider says Fujitsu has repeatedly refused to sell ICL gear in Japan, for example. But such a deal would reassure customers and ensure ICL's technological and financial future. "Partnering with someone you know is probably better than with someone you don't know," says Wilmot, who left the company in 1985. In turn, ICL would give Fujitsu an avenue for breaking into Europe.

RIPPLE EFFECT. Just as important, a partial spin-off of ICL would give parent company STC some needed cash for its own expansion plans. Adam Quinton, an analyst at UBS Philips & Drew Ltd. in London, figures that a half-stake in ICL should bring in a minimum of $900 million. That would cover STC's 30% share in building a new mobile-phone network in Britain, plus help it reduce dependence on British Telecommunications PLC, its dominant customer for transmission gear. A healthy price for an ICL stake could also bump up STC's share price.

A deal involving ICL may also ripple out to affect STC's relationship with its largest shareholder, Northern Telecom Ltd. The Canadian company bought ITT Corp.'s 27% stake in STC in 1987, but so far it has reaped little benefit—and STC's shares have sunk 25% since then. Northern declines to comment, but an ICL deal that restructures STC and bumps up its share price might tempt Northern to rethink its investment. "Northern is sort of 27% pregnant at the moment," says Wilmot. "It must be unsatisfactory." Northern could bid for the new, slimmer STC—or, more likely, unload its stake. None of which augurs well for British—or European—high tech.

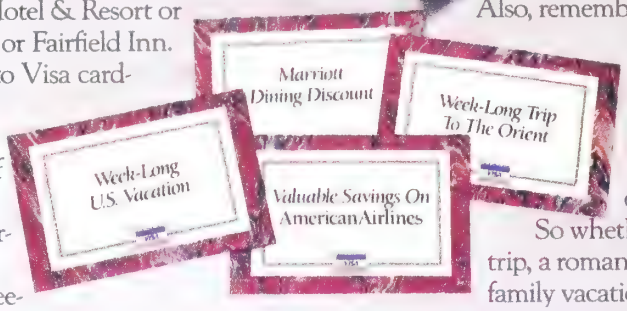
By Mark Maremont in London, with Neil Gross in Tokyo and bureau reports

> Already heavily dependent on Fujitsu chips and processors, ICL is sometimes derided as a 'hollow corporation'

CHECK INTO ANY MARRIOTT WITH VISA AND YOU'LL CHECK OUT WITH A GIFT. EVERY TIME.

If you have a Visa card, we have something special for you. Because we'll give you a free gift every time you use your Visa card to check into any Marriott Hotel & Resort or Suites, Residence Inn, Courtyard or Fairfield Inn. This offer is available exclusively to Visa cardholders from May 1st through August 31st, 1990.

You could receive five years of week-long holidays at Marriott Resorts, a trip to the Orient featuring a stay at the Hong Kong Marriott, or one of our many three-day weekend getaway packages to some of the hottest spots in the U.S., from San Francisco to the Florida Keys. Plus special values from American Airlines, dining discounts, and more!



Also, remember to guarantee your Marriott reservation with Visa's Guaranteed Reservation Service. That way, you can be sure that your room *and* your gift are going to be there, whenever you get there.

So whether you're planning a business trip, a romantic weekend for two, or the family vacation, remember Marriott. And remember your Visa card. Because when you check into Marriott with Visa, everyone checks out a winner.

Marriott HOTELS·RESORTS
1-800-228-9290

COURTYARD by Marriott
1-800-321-2211

FAIRFIELD INN by Marriott
1-800-228-2800

Marriott Residence Inn
1-800-331-3131

NO PURCHASE NECESSARY. Void where prohibited. Open to U.S. residents 18 years or older, additional age restrictions may apply to some prizes. Game expires 8/31/90 or sooner, if gamecard supply is exhausted. For complete official rules, send a self-addressed, stamped envelope to Official Rules P.O. Box 242, Elmhurst, IL 60126-8242 by 8/31/90. (WA residents may omit return postage.) Sweepstakes subject to complete official rules, which are available at participating hotels and resorts. A total of 1,172,609 gifts will be given away. For a complete list of gifts see official rules. PRIZES: GRAND (1) Five years of week-long vacations at Marriott Resorts. Approx. retail value $18,550 (odds: 1:1,172,609). FIRST (4) A trip to the Orient. Approx. retail value $6,400 (odds: 1:293,152). SECOND (50) Week-long vacation at any Marriott Hotel or Resort in the Continental U.S. Approx. retail value $1,927 (odds: 1:23,452). THIRD (200) 3-day weekend Getaway Package at any Marriott Resort in Continental U.S. Approx. retail value $1,123 (odds 1:5,863). FOURTH (140,695) 2 American Airlines $25 discount coupons. Approx. retail value $50. (odds 1:8) FIFTH (123,000) Dining discount at participating Marriott Hotel or Resort restaurant. Approx. retail value $21. (odds: 1:10). SIXTH (126,869) Gift Shop 30% discount coupon. Approx. retail value $9. (odds: 1:9) ©Visa U.S.A. 1990.

FOREIGN EXCHANGE. There's a world of evolving technology at International Paper's command. And we funnel it wherever it can make for better products for our customers. Since we acquired France's second-largest paper company, Aussedat Rey, we're sharing with them methods we've perfected for making alkaline papers that stay white for decades. And they're sharing non-impact printing know-how with us. Technology transferred between our Arizona Chemical subsidiary and its Swedish counterpart Bergvik Kemi is creating improved ingredients for products from printer's ink to chewing gum. And advanced graphics techniques developed by our people in Korea add point-of-purchase appeal to food packaging in California. When ideas fly, business takes off. **INTERNATIONAL PAPER.** Use our imagination.

© 1990 International Paper Company. All rights reserved.

VHY AID TO CHINA S A HIGH-STAKES GAMBLE FOR JAPAN

Japan wins G-7 backing on China," boasted the headlines in Tokyo the day after the July 9-11 economic summit in Houston ended. Indeed, the deference with which West- leaders greeted Japan's Toshiki Kaifu raised the stature of lightly regarded Prime Minister enough even to give him ne independence from the Liberal Democratic Party power kers who installed him in office last August.

Sut Kaifu's Houston triumph could not have taken place hout George Bush, who quietly supported Japan's plan to ume lending to China—even though official U. S. policy is oppose economic assistance until China improves its post- nanmen Square human rights record. Bush believes that ating China's leaders makes them feel eatened and intractable, so letting Ja- take the lead seemed an obvious polit- solution.

apan's motives are more mixed. Its in- trialists and bankers, with $2.5 billion eady sunk into China, want to keep the nese economy from falling off a cliff, le Japan's internationalists want to w that they can work with Bush. But as West Germany's plan to provide billion in loan rollovers to the Soviet on alarmed some Western security ex- ts, Tokyo's loans raise questions about whether Japan is lermining the West's efforts to push China into democratic orms. Such concerns even make some Japanese wonder if y are not being set up to take the heat on China if Beijing cks down again. "Bush is letting Kaifu take the blame," s foreign affairs analyst Kan Ito, a consultant to the LDP. e are being used."

Vhether Bush might work with Japan as his surrogate on er situations in Asia isn't known, but some analysts think possible. "This is the first time the Japanese came up with olicy that was different from what the U. S. was publicly hing," says Edward J. Lincoln, a Japan expert at the ookings Institution who predicts Bush might try the same backdoor-aid approach in Vietnam, where official U. S. policy is to maintain an embargo. White House officials say that Kaifu broached the China issue after extensive Japanese soundings concluded that Congress wouldn't explode and that European allies, despite misgivings, would not complain.

Still, the initiative on China carries big risks for both the U. S. and Japan. Although the Japanese say they will only lend for humanitarian purposes, the money may eventually go for power, railroad, and harbor projects that normally don't meet such a definition. The Japanese "are basing their policy on deals, not ideals," says Representative Nancy Pelosi (D-Calif.), a strong critic of the Beijing government.

A MITSUBISHI MINIBUS AD IN CHANGZHOU

LACK OF VISION. High-level Japanese government delegations already are heading for Beijing to discuss aid and foreign investment. Top political leaders, including former Prime Minister Noboru Takeshita and prime ministerial hopeful Shintaro Abe, plan visits to China later this year. If Japanese businesses get a big jump on U. S. companies, who are being hampered in China by U. S. policies, they risk a backlash from U. S. executives.

Bush is gambling that he can keep Japan's Asian policies in line with U. S. interests. Although the Japanese are the largest providers of aid to Asia, they haven't developed the strategic vision that could translate their economic strength into political power, says Ronald A. Morse, executive vice-president of the Economic Strategy Institute in Washington.

But while that may be true today, the world cannot help noticing that Japan and West Germany got the summit to recognize their claims of special relationships with China and the Soviet Union, respectively. Right now, their influence comes from writing checks. But in the future, that check-writing may translate into more political power.

By Robert Neff in Tokyo, with Amy Borrus and Douglas Harbrecht in Washington

OBAL WRAPUP

EST GERMANY

n just two days of talks with Soviet President Mikhail Gorbachev on July 5-16, West German Chancellor Helmut ohl achieved what his advisers feared ight take months of rough-and-tough egotiations. He persuaded the Krem- n leader to sign off not only on Ger- an reunification this year but also on onn's continued membership in NATO nd a pullout of Soviet troops from ast Germany within four years.

That coup practically ensures that ohl will be elected the first chancellor f a united Germany in the vote ex- ected on Dec. 2. With the political out of both British Prime Minister Margaret Thatcher and French President François Mitterrand on the wane, Kohl is on his way to becoming Europe's most powerful leader and a man to reckon with into the mid-1990s.

He will most likely use his new influence to open up the European Community to the Soviet Union and Eastern Europe. In the months leading up to what promises to be a crucial Dec. 13 EC summit, Kohl will be pushing for far greater commitments to the East from reticent allies such as Britain. On the table are a $15 billion EC aid package to support Gorbachev's reforms. Kohl, who has emerged as the EC's broker with the Soviets, is also telling Gorbachev that to get all these goodies, the pace of reform will have to pick up in the Soviet Union.

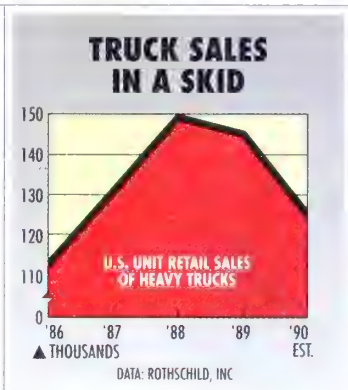
Kohl is making his influence felt on European security issues. By promising to slash united Germany's troop strength to 370,000 men from around 600,000 now, he's setting the scene for major troop cuts by other countries in future rounds of conventional disarmament talks in Vienna. His tying these cuts to Soviet withdrawals may in turn allow the U. S. to pare its forces in Europe to between 50,000 and 70,000 from the present 326,000. But Kohl keenly appreciates the U. S. role in making reunification possible and will pull out all the stops to keep America involved in European security.

CHARLESWORTH/JR PICTURES

NAVISTAR LABORS UP ANOTHER HILL

This time, an industry slump and price-cutting rivals cause the pain

James C. Cotting is no stranger to hard times. Since the chief executive of Navistar International Corp. signed on in 1979, the truckmaker has felt more pain than most companies—much of it self-inflicted. Just after Cotting arrived, the former International Harvester Co. got tough with its unions and suffered a bitter strike. A few years later, high debt pushed Navistar to the brink of bankruptcy. Cotting, then vice-chairman and chief financial officer, rescued Navistar with a sweeping recapitalization that sliced debt to 29% of capital by 1987 from a harrowing 93% a year earlier.



The 57-year-old Cotting is facing problems again—but financial wizardry won't help him this time. For a change, most of Navistar's troubles aren't of its own making. The slowdown in manufacturing means fewer deliveries, which has stalled the truck market (chart). Industry analysts expect demand for trucks to slump 16% this year, to 125,000 units. Worse yet, better-capitalized foreign rivals are pushing into Navistar's markets and grabbing share.

SHARK BAIT? As a result, the company's earnings are under pressure again. Last year, net income fell 65%, to $87 million, on flat sales of $4.2 billion. And for the first six months of this year, Navistar has lost $10 million, compared with earnings of $72 million in 1989. Says Prudential-Bache Securities Inc. truck analyst Steve Colbert: "If Cotting can't produce, somebody might acquire the company."

Navistar isn't fighting from a position of strength. Benefits for 40,000 workers laid off in the company's restructuring make Navistar's total costs per truck 3% to 5% higher than its rivals, admits President Neil A. Springer. That leaves it vulnerable to price cutting by competitors such as Sweden's Volvo and West Germany's Daimler Benz, which owns Freightliner Corp. After slashing prices, Freightliner increased its market share four percentage points, to 21%, in the first quarter, bringing it bumper-to-bumper with Navistar, which makes International trucks, and Paccar Inc., maker of Kenworth and Peterbilt trucks.

Competition may get much hotter. Renault Véhicules Industriels' move to buy the 56% of ailing Mack Trucks Inc. it doesn't own could add muscle to the best-known truck brand in America (box). Mack is deeply troubled, but Renault has had practice jump-starting problem operations. Five years ago, Renault lost more than $500 million. But in 1989, it posted net income of $180 million on sales of $6.1 billion.

The international links forged by Mack and other truckmakers also give Navistar's rivals broader arenas in which to recoup their development dollars. "I don't see where somebody based solely in one market, looking from one perspective, can get the volumes in the marketplace," says Mack CEO Ralph E. Reins. That hasn't made Cotting leery of investing, though. He plans to spend $165 million in new plant and equipment this year, up from $118 million in 1989.

Cotting has also been working with

THESE DAYS, MACK TRUCKS ISN'T BUILT LIKE A MACK TRUCK

When Ralph E. Reins joined Mack Trucks Inc. 13 months ago, he faced a sliding market share, nagging quality problems, and the worst labor relations in the truckmaking business. Now, even though he has slowed the share decline, set aside an extra $68 million to handle warranty claims, and made peace with labor, Reins still has trouble. To avert a possible Chapter 11 bankruptcy filing, Mack's main shareholder, Renault Véhicules Industriels, launched a $6-a-share tender offer on July 12 for the 56% of Mack it doesn't already own. Mack officials say that is the only way to reassure creditors who are nervous about the company's imminent default on loan covenants.

Mack's fall is a textbook case of how a dismal market, overly ambitious capital spending, and management missteps combine to humble even the best-kn name in a business. Mack's probl stretch back to trucking deregula starting a decade ago. Like its riv Mack faced the marketplace with out ed plants and high production costs a time when deregulated truckers were der pressure to pinch every penny. Una to contain costs, Mack executives tried erything—from contracting work ou cutting down on labor—but wound with unhappy workers and big qua problems.

PANIC BUTTONS. Under Reins's prede sor, John B. Curcio, labor relations g so strained that executives had panic-ton alarms and special locks installe their offices at headquarters in Al town, Pa. But shortly after moving u

IN THE FIRST HALF OF 1990, NAVISTAR LOST $10 MILLION

pliers and labor unions to slash the e it takes to roll out new models to years from the industry's standard r. "We're making real dramatic nges," he says. Cotting hopes such peration will help cut costs, too. At Indianapolis engine factory, for exple, Navistar has turned over to Lit- Industries Inc. the design and instalon of machining operations. Litton mises the line will be up and running east 85% of the time, compared with an industry average of 65%, which should lower Navistar's capital costs by 25%. Litton has agreed to reduce its price if it misses the target when the line opens next year.

Navistar's links with such strategic suppliers could alienate some customers, however. Truck drivers who own their rigs are picky shoppers, accustomed to specifying the makers of everything from engines to brakes. Navistar's move toward using a few key suppliers turns off these brand-conscious buyers. Springer says the company is stepping up marketing efforts aimed at these small customers but admits: "It'll take some time to change their mind-set."

Cotting also hopes that improved quality can be a selling point. Teams of dealers, workers, and customers have helped eliminate defects. Like most truckmakers, Navistar was plagued by excessively leaky air compressors. A group of workers redesigned the units, and United Auto Workers Secretary-Treasurer Bill J. Casstevens says only 15% of the compressors now leak, down from 83%. "That's still unacceptable," he adds. "Our goal is 100%."

Quality problems and a soft market aren't Navistar's only woes. Last year, Cotting decided to introduce 27 new models, replacing almost 85% of Navistar's line. Some of the new trucks have fewer parts to reduce maintenance, more aerodynamic designs to improve efficiency, or bigger cabs with more sleeping space. But just as the company closed factories for retooling, the market boomed, and Navistar lost orders to rivals. And while its earnings plunged, competitor Paccar's net income rose 28%, to $242 million, last year.

HUMMING ALONG. Even if it can overcome its current difficulties, Navistar could encounter some new ones over the long haul. While Cotting has focused on retooling, rivals have expanded capacity. During the late 1980s, Volvo spent $300 million to double its U. S. capacity to 30,000 trucks a year, which should help it cash in if truck demand rebounds. That could come in 1993, when truckers are expected to buy as many as 175,000 new vehicles before costly new emission standards go into effect.

Springer argues that the retooling has made Navistar more productive. "Our redesigned factories are equal to the challenge," he says. For now, Navistar is enjoying high utilization: Its plants are already running at 75% of capacity despite weak demand. That makes the plants more efficient and helps Navistar cope with its cost problems. And after all it has been through in the past few years, risking the loss of a few sales in the event of a boom may be Navistar's most prudent course.

By Kevin Kelly in Chicago, with David Woodruff in Detroit

m president last September, ad the extra security removed, that won praise from unionists. halted Mack's legal fight to overpro-union vote at a new plant sboro, S. C., and agreed to a ited Auto Workers contract. ill faces quality woes, however. r, Mack rushed out its new long-600 truck, but production glitched the model's engine. So Mack ler-style engines, which customned.

shelling out $500 million on new over the past five years, Mack ned a profit only twice in that In 1989, the red ink grew 4 million on $1.9 billion in reve- For now, the outlook remains With the truck market still flat k's share of the heavy-duty seg- 12.4%, its lowest point in a Renault officials are projecting f losses of $90 million and fullses of $130 million. Worse, they xpect to see profits until 1992.

"Mack is going to have a difficult time," Reins says. The losses will put the company in default on loan covenants with Citibank and other lenders. Talks with the lenders, whose agreement is needed for the tender offer, are under way.

Other issues cloud the takeover. Already, a shareholder group has sued to block the move, claiming Renault portrayed Mack too darkly in an effort to drive down the stock price. Also, Reins is interested in joining forces with Volvo to divide U. S. product-development and other costs—a plan similar to a deal that Renault has cut with Volvo in Europe, where the two companies have exchanged 45% stakes in their truck operations. But antitrust considerations could limit such cooperation here. Even with Renault stepping up to rescue Mack from possible bankruptcy, the stolid bulldog that is Mack's symbol probably won't have a reason to look any more cheerful for a long time.

CHAIRMAN REINS: PUSHING FOR A TAKEOVER BY RENAULT

By Joseph Weber in Philadelphia, with Blanca Riemer in Paris

(BOTTOM) PHOTOGRAPH BY CHRISS WARE

TREATING WASTE: CGE GRABS A BIG STAKE

STRATEGIES

FRANCE'S WATER GIANT TAKES A GULP OF NEW BUSINESS

CGE moves into cable TV, hospitals—and U.S. pollution control

When it comes to water, France is known mainly for pricey bottles filled at mineral springs. But the French also drink tap water. And they buy most of it from a little-known publicly traded outfit called Compagnie Générale des Eaux, set up by Napoléon III in 1853 to pipe water from the Seine into Paris apartments. CGE now slakes the thirst of 33 million customers in France and elsewhere in Europe, making it the world's biggest and wealthiest water company by far.

Water, however, is not where CGE is making its splash these days. This once-stodgy utility is on a diversification binge. It's moving into a baffling array of businesses—cable TV, hotels, mobile phones, construction, waste management—and is making the mix work. In the past four years, revenues have doubled, to $17.8 billion in 1989, while profits have risen threefold, to $332 million.

BIG SWALLOW. Now, France's thirsty water company is moving into the U. S. CGE has a modest U. S. presence, with small stakes in six water utilities and two water bottlers. In May, CGE paid $100 million for 16% of Air & Water Technologies, based in Branchburg, N. J. With sales of $606 million last year, AWT is a major player in pollution control, a CGE specialty. CGE officials say they may buy more stock if AWT agrees, or when a standstill agreement ends in 1993.

CGE sees a bright future in pollution control. "The U. S. and Europe are going through a revolution" in pollution management, says Paul-Louis Girardot, CGE's president. Air, water, and soil pollution have been treated separately, but now are seen as interlocking problems. Girardot thinks big opportunities await companies that master all three areas, as does AWT.

The pillars of CGE's growing empire are lush 40-year municipal water contracts that help produce its annual cash flow of $1.4 billion. CGE has been spending this cash on acquisitions. Two years ago, it began buying European hospitals. It has become the Old World's biggest private hospital operator since its March purchase of American Medical International's chain in Britain. Now, CGE is shopping for hospitals in Germany and Spain.

CGE's strategy is the work of its 69-year-old chairman, Guy Dejouany, an engineer who joined the company in 1950. On becoming chairman in 1976, he began boosting CGE's presence in steam heating and other services not far afield from water. In the 1980s, Dejouany's reach grew broader—and most of his moves have paid off big. He co-founded France's hugely profitable Canal-Plus, the world's No. 2 pay-TV company. He bought into a toll-road operator and built airports and office buildings.

Despite appearances, there are common threads in Dejouany's hodgepodge of businesses. He tries to pick things that require two types of expertise that CGE has developed in water: dealing with government and managing a huge consumer subscription base. Thus, the reasoning goes, garbage collection, parking-garage management, and cable TV aren't so different from delivering water. "They're a lot more unified than an American conglomerate," says Jean-Louis Beffa, chairman of French glassmaker Saint-Gobain, which owns 10% of CGE.

NEW NECESSITIES. In addition, Dejouany seeks emerging services that he thinks will become as essential as water. That's why he has made CGE France's biggest private player in mobile phones. Ditto for private hospitals, a fledgling industry in Europe. He thinks they'll grow as Europe's population ages and governments run short of health care funds.

CGE has stakes in more than 1,200 subsidiaries, but has a headquarters staff of only 15 managers. Dejouany dislikes brief encounters, refusing to see visitors unless he has a free hour or more. "I have trouble getting time with him," says Girardot. So did BUSINESS WEEK: Dejouany declined to be interviewed.

Dejouany has had no big failures, though cable TV and a stake in a Paris amusement park are taking longer than expected to turn a profit. Because of big investments in new ventures, profits will grow about 16% this year and next, compared to 30% last year, says Isabelle Blaize of Patrick du Bouzet, a Paris brokerage. "But they'll explode around 1994 or 1995," when cable TV income should soar. CGE is already a company transformed: Europe's faucets now produce only 25% of sales. Now it's Dejouany's stream of new businesses that should keep the cash flowing.

By Stewart Toy in Paris

CGE'S REVENUE STREAM

	Percent
CONSTRUCTION	35.1%
WATER	24.1
HEATING	9.4
ELECTRICAL	8.2
REAL ESTATE	8.3
MAINTENANCE	5.2
HOMEBUILDING	1.1
OTHER*	8.6
TOTAL	$17.8 BILLION

*Includes hospitals, pay and cable TV, mobile phones

DATA: COMPANY REPORTS

"We have 1,900 reasons to rely on UDS modems"

Networking some 1,900 paint and decorating stores nationwide requires bold thinking; the broad geographic spread generates an awesome task for the Sherwin-Williams information network.

Sales, inventory, personnel and other operating data must move between each store and the corporate mainframe on a timely basis. Concurrent on-line credit card verification is another desirable capability.

Created by Dayner/Hall, Inc., Winter Park, Florida

Sync-Up™ 201/212 modems, by UDS, are the Sherwin-Williams solution.

These devices are tailor-made for Sherwin-Williams' divided communications responsibility — their low-speed (1200 bps) channel can be used for credit card verification, while operating data travel via the modems' higher-speed (2400 bps) circuit.

Versatility, reliability, economy. These are the reasons why Sherwin-Williams chose UDS. If you have similar system needs, follow the Sherwin-Williams example. Contact UDS, 5000 Bradford Drive, Huntsville, AL 35805-1993.
Telephone 205/430-8000;
FAX 205/430-8926.

—Bob Mulhern,
Manager Systems Integration
Paint Stores Group

SHERWIN WILLIAMS

UDS

MOTOROLA

The new Beech Starship. The future of flying as no

People stop and stare, because Starship is totally unlike any other plane now flying.

It was designed and built by Beech Aircraft, a Raytheon company.

Its revolutionary design gives it superior stability and handling.

It is constructed of composite material far stronger and lighter than aluminum.

It has more cabin room than you'll find in jet aircraft costing almost twice as much. It also has the most advanced avionics package aboard any general aviation plane today.

Starship is designed to carry up to eight passengers in ultimate comfort at high speed.

The Beech Starship. It's the future of flying.

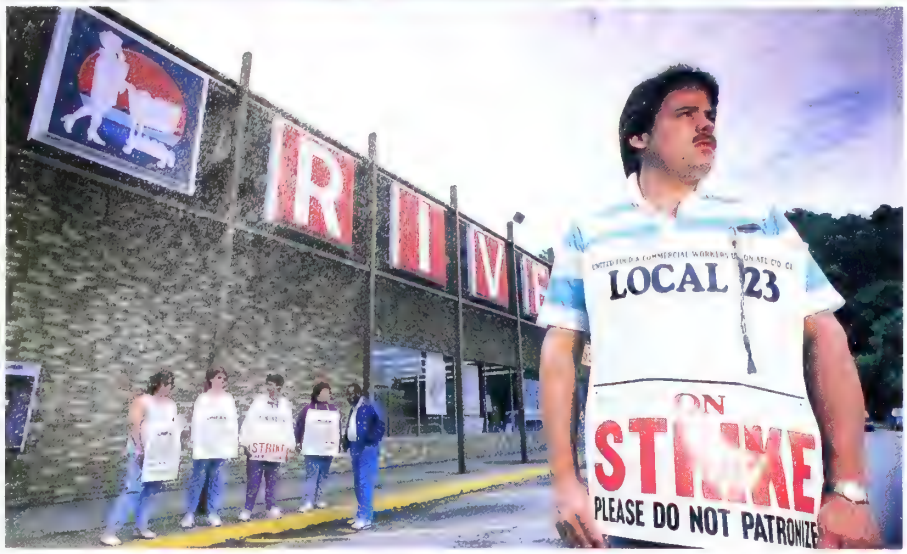
Raytheon Company, 141 Spring Street, Lexington, MA 02173.

s now arrived.

Raytheon

Where quality starts with fundamentals

PENSIONS



SHOFFNER: "I HAVE NO FAMILY AND I STILL CAN'T PUT ASIDE MONEY FOR AN IRA"

IN SEARCH OF THE VANISHING NEST EGG

For young workers, pensions may be going the way of the dodo

Kurt A. Shoffner is only 23 years old, but he's already worrying about how to support himself when he retires. In the past four years, Shoffner worked his way up to head grocery clerk at the Riverside supermarket in Ford City, Pa., about 50 miles north of Pittsburgh. But like many small companies—the store employs fewer than 30 people—Riverside has no pension plan. That, plus wages of $5 an hour or less, made Shoffner and a dozen co-workers go on strike in early June.

"Social Security is definitely not enough to live on," says Shoffner. "I know because my father is retired, and it's tough for him. I have no family and I still can't put aside money for an IRA. I have to think about a pension."

DRASTIC DECLINE. Shoffner isn't the only young person in this predicament. Although recent debates about retirement have focused on whether Social Security will run short of funds down the road, few seem to have noticed a problem of potentially equal magnitude: the shrinking percentage of workers in company-financed pension plans. The number fell from 50% of full-time employees in 1979 to 46% in 1988, the latest year for which figures are available (chart). The decline is even more drastic when the burgeoning part-time labor force is included—from 43% to 37%. And the hardest hit have been young people, especially men under 35 (chart).

Most younger employees don't think as far ahead as Shoffner. But a growing number of these workers are likely to complain as they become aware of the problem. Pensions also are likely to become fertile ground for union organizing. At Riverside market, the United Food & Commercial Workers is providing signs to the picketers and paying them strike benefits in an attempt to bring them into the union.

Part of the decline in pensions stems from the growing use of alternative retirement arrangements. Instead of the customary pension, which pays a monthly retirement income based on salary and years of service, many employers have turned to profit-sharing or stock bonus plans. These still provide retirement income, although sometimes at lower rates than a pension. Other types, including 401(k)s and savings or thrift plans, usually involve employees putting aside funds that the employer matches. Since many lower-paid workers don't or can't afford to do so, they wind up without a pension.

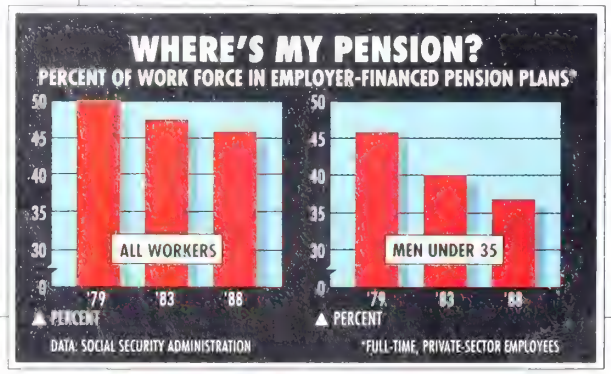
Making matters worse, a host of demographic changes tend to leave newly hired workers without retirement coverage. Many new jobs in the 1980s were created in the service sector at smaller nonunionized companies, which traditionally have been less likely to offer pensions. For instance, only 12% of workers at companies with less than 10 employees have a pension vs. 82% at companies with 250 or more employees. Similarly, 89% of unionized workers are covered, compared with 52% of unorganized ones.

LOST GROUND. The same trend shows up in industries. In manufacturing, mining, and communications, where few new jobs have been spawned, pension coverage ranges from 60% to more than 70%. In higher-growth industries—retail and wholesale trade, professional and business services, finance, insurance, and real estate—only 20% to 50% of employees have pensions. "The common wisdom is that major shifts in the work force help to explain the decline in coverage," says John R. Woods, an analyst at the Social Security Administration who documented the decline.

Young workers have been affected the most. Since men can no longer land unionized manufacturing jobs, many have been forced into industries where pensions are scarce. Young women, on the other hand, have been less affected, since women traditionally have worked in jobs with low pension coverage. Some college-educated women have gained ground by moving into male-dominated occupations, where pensions are more widespread. Other women have lost ground for the same reasons young men have. The net effect: Women under 35 have about the same pension coverage today as they did in 1979.

Young people already have plenty to worry about with the troubles of Social Security. They may not yet realize that for many of them, the other mainstay of retirement—the company pension—has vanished. When they find out, they will undoubtedly feel the way Shoffner does: angry and worried about what they'll do when they retire.

By Aaron Bernstein in New York



When it comes to measuring temperatures, Schott is even more precise than nature.

Gauging temperatures – nature's way and Schott's. The crocus reacts to temperature changes of 1.0° F. Thermometers made with Schott special glass register changes of 0.002° F.

The temperature outside has just risen to 35° F. How do we know? Because that's when the crocus begins to open its petals.

The crocus has a natural, internal thermometer. Temperature changes of just 1.0° F cause a fast reaction. When the temperature rises above a given level, the flower opens. When it drops, the flower closes.

Today, we can measure temperature variations as minute as 0.002° F thanks to the special thermometer glass invented by Otto Schott.

His capillary glass tube thermometers filled with liquid were the first to make such precision measurements possible. Unlike earlier, standard glass models, thermometers made of this special glass give accurate readings even after they have been temporarily heated and then cooled. Thousands of specific precision thermometers now in use in science and technology are made with Schott special glass.

Thermometer glass, available from Schott America, is just one example of how Schott's innovative development responds to specific needs. In today's world, special glass helps keep technology advancing.

Schott worldwide: 50,000 products, 50 production facilities, represented in more than 100 countries, with over $ 1 billion in sales.

Schott in North America: 11 companies employing more than 1,800 people.

Would you like to know more about our special glass? Write to: Schott Corporation, Department B 30, 3 Odell Plaza, Yonkers, NY 10701.

SCHOTT

Nobody knows more about glass.

MEET MONSIEUR LUXURY

BERNARD ARNAULT IS BUILDING A HUGE EMPIRE—BUT CAN HE MANAGE IT?

Bernard Arnault hardly seems cut out for his job. A major force in the champagne and cognac businesses, he doesn't like to drink. A kingpin of fashion, he hates wasting his time on the party circuit. But this week, when Christian Dior holds its semiannual haute couture show, the sober-faced dealmaker will eagerly join the Parisian elite lining the runway. Arnault owns Christian Dior, so his attendance is no big surprise. But his enthusiasm for the show goes beyond corporate obligation. "I love this business," says Arnault. "It's creative. There's applause. It's like financing a movie."

If it's the thrill of show biz he's after, many rivals would gladly send him off to Hollywood. In just six years, the 41-year-old financial whiz has grabbed control of some of the best-known brand names around. His latest prize: the world's largest luxury-goods company, which bears the jawbreaking name LVMH Moët Hennessy Louis Vuitton. Arnault's opponent in a bitter power struggle, Henry Racamier, the former chairman of the firm's Louis Vuitton subsidiary, capitulated in late April after an 18-month legal brawl. Since then, Arnault has purged Vuitton's top executives and is starting to stitch together his fragmented luxury empire. It boasts more than a dozen businesses and annual revenues of about $5 billion.

HOT STOCKS. Some outsiders wonder if Arnault, who as recently as 1984 was a condo developer in Florida, is as good at managing companies as he is at taking them over. He is determined to prove that he's a builder. "I'm going to run LVMH for the long term," he promises, sitting in an elegant antechamber at Dior. "We'll become an even stronger No. 1. My image will change." He has big obstacles: Some LVMH businesses are going flat, and they may really sink if the economies in his top markets take a dive.

Clubby, genteel Paris has seen few acquirers as ambitious as Arnault. Along with a handful of other young French wheeler-dealers—conglomer-

CHEZ ARNAULT

Through several interconnecting holding companies, Bernard Arnault has a huge collection of famous properties. They bring in annual revenues of more than $10 billion. Among them:

Luggage, Leather Goods: Louis Vuitton, Loewe, French Co.

Retailing: Bon Marché, Céline, Givenchy, Christian Dior and Louis Vuitton stores

builder Vincent Bolloré soccer-club owner Ber-d Tapie, who recently ght West Germany's das—Arnault owes his partly to a new French gmatism toward busi-s. Failed Socialist experi-nts have changed the nch attitude toward per-al gain, and a hot stock rket has greased take-r financing.

Iany French executives ent Arnault as a parve-—or worse. "He's an as-shuffler, a raider, a nch Donald Trump," s an ex-Louis Vuitton of-r, fired by Arnault in the ent purge. Pierre Bergé, irman of Dior rival Yves nt Laurent, says Arnault ited him to a get-ac-inted lunch not long ago. e was friendly," says gé. "Friendly like a bird of y that might want to de-r you." But he has fans und the Bourse. Gilles Ca-Salvador, a Stanford University MBA who runs a financial n called LBO France, praises him as a risk-taker: "People him are setting good examples for the French economy."

Arnault is out to prove he's not a predator: "I'm going to run LVMH for the long term. We'll become an even stronger No.1"

CEY BUNDLES. While the French disagree on Arnault's vir-s, one thing is certain: He reigns over the Parisian luxury ustry as no one before. The Main Street of his realm is the h, chestnut-shaded Avenue Montaigne, near the Champs-sées. From his pearl-gray office above Dior's flagship re, he can watch tourists from Japan and the U. S. carry off pricey bundles from his luxury shops: $2,200 suitcases from Louis Vuitton, $1,200 sports dresses from Céline, $2,700 women's suits from Givenchy. A few blocks away is a hot fashion house Arnault founded three years ago, Christian Lacroix.

When the champagne starts flowing at this month's fashion shows, much of it will be Arnault's. LVMH is France's top producer, with Moët & Chandon, Dom Pérignon, and five other brands. Arnault also bottles more cognac than anyone else, and he's a top producer of expensive perfumes. In fact, if it's French and fashionable, Arnault probably makes it.

Or soon will. Having consolidated his power, the king of conspicuous consumption wants to expand his reach. He aims to develop new products and juice up the marketing of his famous brands. And he's going after acquisitions—something he couldn't do while control of LVMH was in doubt. Industry sources cite several takeover possibilities, including accessory maker Hermès, jeweler Chaumet, and Révillon, a perfume and fur company.

He may also be eyeing his biggest prey: Guinness, the giant British liquor combine, which shares 46% control of LVMH with him. Arnault denies any interest in taking over Guinness. But last month he paid $1.5 billion to double LVMH's stake in Guinness, to 24%. Picking up Guinness' $5.5 billion in sales and

hing, Accessories, etries:
stian Dior, Givenchy, stian Lacroix, RoC, ne

Champagne:
Moët & Chandon, Dom Pérignon, Veuve Clicquot Ponsardin, Mercier, Ruinart, Canard Duchêne, Henriot

Cognac:
Hennessy, Hine

Spirits:
Johnnie Walker, Dewars, White Horse Scotch, Gordon's and Tanqueray Gin (through 24% ownership of Guinness)

California Wine:
Domaine Chandon, Simi

(TOP TO BOTTOM) PHOTOGRAPHS BY ST PHAIL SPENCER TED MORRISON

its vast distribution network would make LVMH rival Grand Metropolitan PLC as the world's largest alcoholic-beverage seller (box).

LVMH's fortunes have soared in recent years as yuppies the world over have grabbed Vuitton handbags and sipped Dom Pérignon. Sales have jumped almost 50% in two years, to the equivalent of $3.5 billion in 1989. Profits have more than doubled, to $524 million—a fat 15% of sales.

'OUT THE WINDOW.' Now, growth is slowing down. The most ominous sign is at Vuitton. Thanks to the marketing flair of Arnault's nemesis, Racamier, sales of its pricey luggage have grown from $22 million to $804 million in 10 years. But sales fell 1% in the first five months of this year. Vuitton executives blame a weak U.S. dollar and Japanese yen, which have pushed up prices. The Japanese buy some 70% of Vuitton's output. But many retailing experts see deeper problems: They think Vuitton lost its cachet by flooding the market with product in the mid-1980s.

Demand for luxury goods in Asia, and to a lesser degree in Europe, is expected to remain strong over the next few years. But the story may well be different in the U.S., which accounts for 17% of LVMH sales. An upheaval in upscale retail outlets is hurting sales, and health concerns are slowing the wine and spirits business. The latter is an element even in France, where cognac sales have fallen 36% since 1980.

Racamier invited Arnault to buy into LVMH. He's sorry now

Some people believe conspicuous consumption may simply be on the way out in the U.S. Judith Langer, president of New York market research firm Langer Associates Inc., predicts buyers "will be somewhat less extravagant" in the 1990s. Industry analyst Allan Mottus sees a more troublesome future: "Americans' disposable income is going out the window."

Arnault is counting on his management team to develop new products that will boost demand. Céline, a fashion accessory house bought by Arnault in 1987, is expanding into women's sportswear and men's suits, for example. He also believes that he can reap productivity gains by better consolidating his various enterprises.

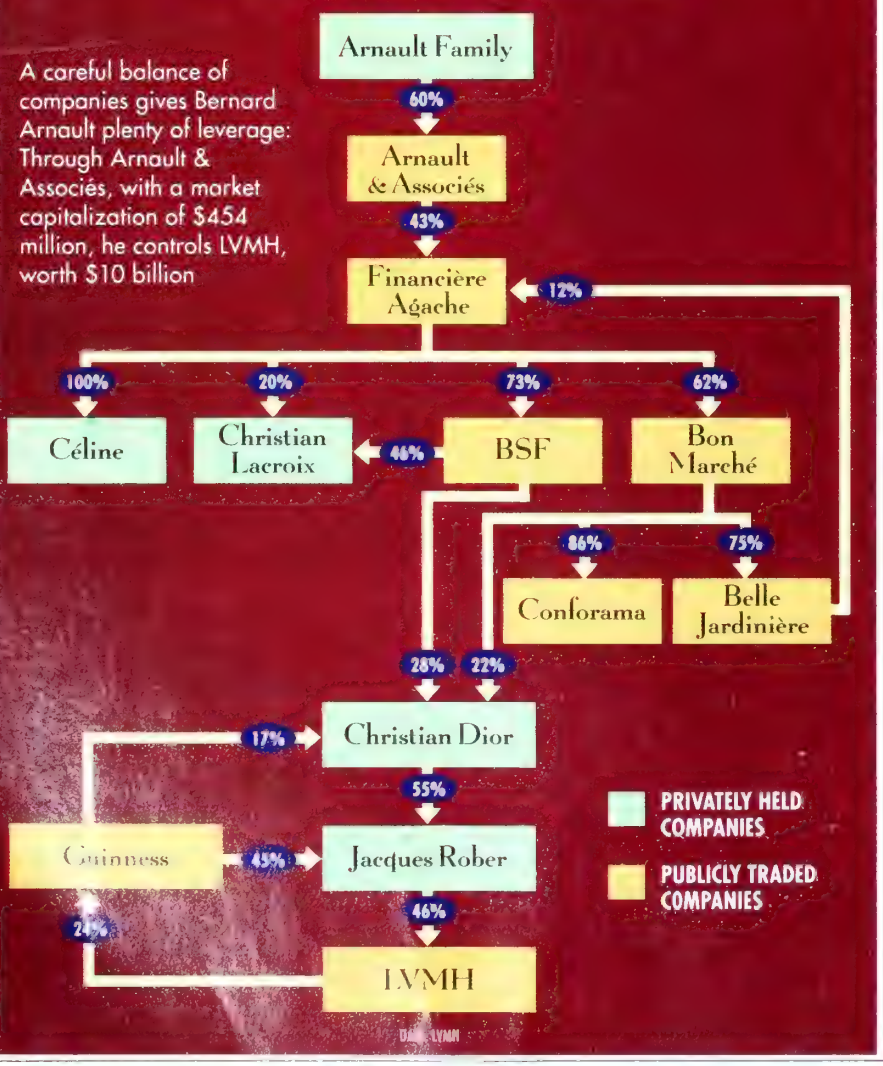
Of all his businesses, fashion is clearly closest to Arnault's heart. "I'm fascinated by creators," he explains. As a youth, he wanted to become a concert pianist but decided he wasn't good enough. Today, he prefers playing Chopin études to taking part in the social whirl. His starchy, introverted personal style puts some people off. "It's true, he's not extremely warm," says Alain de Pracomtal, chairman of Hennessy cognac. "But he has a remarkable intelligence."

It was honed at some of the top schools in France. After growing up near Lille, where his father owned a small construction company, Arnault attended the elite Ecole Polytechnique in Paris, among other schools. He gives credit to his grandmother, with whom he lived for part of his youth, for instilling in him an intense work ethic. Arnault demands as much of his own children. During August holidays at his Saint-Tropez villa, a teacher gives daily math and English lessons to his kids, ages 13 and 15. Isn't that a little harsh, when they're on vacation? "They only study in the mornings," explains Arnault.

SEXIEST. Prior to the mid-1980s, Arnault's business experience wasn't particularly impressive. He went to New York in 1982 to run an offshoot of his father's company, which built some condos in Florida. The venture went nowhere, but the experience changed Arnault's life. At a party, he met François de Combret of the Paris-New York bank, Lazard Frères & Co. Lazard proved a decisive ally in 1984, when Arnault's lawyer persuaded him to return home and seek control of a bankrupt

PYRAMID OF POWER

A careful balance of companies gives Bernard Arnault plenty of leverage: Through Arnault & Associés, with a market capitalization of $454 million, he controls LVMH, worth $10 billion



ench textile giant, Boussac. With $16 lion from his family and backing by zard and other investors, Arnault ight control for $73 million. He kept ussac's sexiest business—Christian r—and sold its industrial assets. That ped finance purchases of LVMH stock, rting in 1988.

Arnault's time in the U. S. also affect- him psychologically, friends say. The e and wealth of American business nned him. "He told me: 'It's amazing v many rich people there are here,' " alls a Parisian friend. The home- lder from provincial France fell in e with the U. S. business style. Says nault, with obvious admiration: mericans go straight to their goal."

USY PROMOTION. So does he—even if it cks some of his peers. Many French ecutives resent Arnault's demolition Boussac, which he had vowed to res- . Small stockholders in some of his npanies claim he squashes them. ne of them are suing Arnault over a tructuring that tightened his grip on n Marché, a Paris department store. cently, he lost an unfair-competition suit filed by couturier Jean Patou af- Arnault hired away Patou's chief de- ner, Christian Lacroix. A Paris court now assessing damages.

Arnault chalks up most criticism of n to the headline-grabbing fight for MH. The core issue in that battle was uis Vuitton's independence. Former airman Racamier, married to a Vuit- , regretted the luggagemaker's 1987 rger with Moët Hennessy to form MH—a merger that was designed to ep raiders away. Arnault moved in way, invited by Racamier, who was uding with his champagne-cognac rtners. But Racamier soured on Ar- ult, too, and sued to invalidate war- nts that cemented Arnault's control. e courts sided with Arnault. Victory ought him a handwritten congratula- y note from one of his idols: British me Minister Margaret Thatcher.

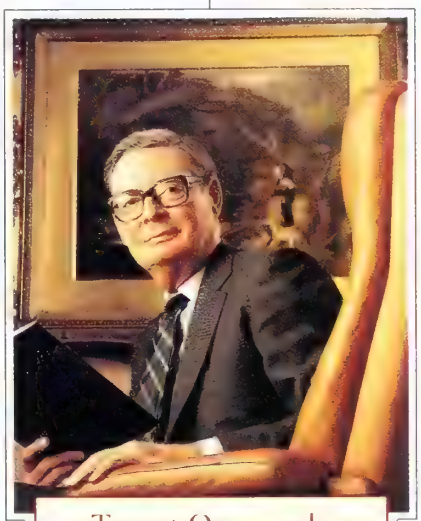
Vuitton's image could use help, too. e ubiquity of its monogrammed can- s handbags "absolutely destroyed the age" in the U. S., says Faith Popcorn, New York marketing consultant. Vuit- n brought out a second line in 1986: nmonogrammed leather goods. But omotion has been lousy, says Popcorn. Yves Carcelle, a former textile execu- e who became president of Vuitton t month, plans to broaden offerings in e two existing lines to give LVMH's 150 res more to sell. He's studying a third e, which may come out next year. Suc- ss is crucial: Vuitton, with 42% profit rgins, gave LVMH 33% of its earnings t year.

The champagne business is also losing me of its sparkle. Grape growers have fused to renew supply contracts with

DOES ARNAULT HAVE A THIRST FOR GUINNESS?

Will he or won't he? Now that Bernard Arnault has a firm grip on French luxury conglomerate LVMH Moët Hennessy Louis Vuitton, outsiders are pondering his next major move. Many are betting he'll go after his leading ally, Guinness PLC, the British liquor giant that controls 40% of the world's Scotch market with such brands as Johnnie Walker and Dewar's. "From the beginning, taking over Guinness has been Arnault's ultimate goal," claims a former executive of LVMH's Louis Vuitton unit. Arnault denies it.

Guinness and LVMH became partners in 1987, when they merged their liquor distribution networks in most countries. A year later, Arnault got Guinness to help him gain control of LVMH. Guinness bought 24% of the French company through two companies controlled by Arnault and agreed that LVMH could in turn buy as much of Guinness. Last month, Arnault surprised Guinness by buying stock in the open market—instead of new shares, as Guinness apparently would have preferred—to go from 12% to 24%. He says he didn't alert anyone because he didn't want the stock to jump.



Tennant: One rumor has LVMH and Guinness merging once he retires

Both sides say they'll stop at 24%. "I have no interest in controlling Guinness," Arnault insists. "We're already getting the full benefit of our relationship." He says the cross-holdings are to block competitors such as Britain's Grand Metropolitan PLC from buying into either company and upsetting the distribution accord. The pact is valuable for both. Some 20% of Guinness' profits flow from products the two distribute jointly, and it has halved LVMH's costs of distributing champagne and cognac in the U. S. and Japan.

UNSTEADY ALLIANCE. But few see the status quo lasting. Paris analysts suspect Arnault has his eye on Guinness' $750 million cash flow. Beyond that, one partner will soon feel it isn't benefiting equally from the relationship, believes Michel Roux, president of Grand Met's Carillon Importers Ltd. arm. Because they are both so aggressive, he predicts, "one of them is going to grab the other" within five years.

Arnault is the likely grabber. His voice in Guinness is strong, as the next-biggest shareholder owns just 4%. Yet the British company's stake in LVMH is buried in two other Arnault companies, Christian Dior and Jacques Rober. Guinness' chairman, Anthony J. Tennant, may regret this structure. "He has asked frequently, with strong insistence," to raise his Rober stake to 50%, says a top Arnault aide. Last year, Arnault let Guinness go from 40% to 45%—but that's the limit, says the aide.

SQUEEZE PLOY. Guinness claims it's not worried. Under a confidential agreement, "we have a lot of rights" to block Arnault moves, says Anthony A. Greener, group managing director of the British company and an LVMH director. As if this cat-and-mouse partnership were not dicey enough, some observers see a possible role for Henry Racamier, former chairman of Louis Vuitton, who left in April after a fight with Arnault. He has set up a rival company, Orcofi, with a powerful partner, cosmetics giant L'Oréal.

Racamier and other Vuitton family members still control 25% of LVMH. Some suggest he might try to buy into Guinness to squeeze Arnault. Racamier won't comment. But he told reporters recently that he's convinced Arnault wants Guinness. Some sources even talk of a secret deal to merge LVMH and Guinness amicably after Tennant retires in 1992.

It would be quite a trick for Arnault to take over the rest of Guinness, which would cost more than $12 billion at today's prices. Still, adding its brands and $5.5 billion in sales would put LVMH in a position to rival Grand Met as the world's largest spirits company. That may be too much for France's aggressive young dealmaker to resist.

By Stewart Toy in Paris and Mark Maremont in London, with Bruce Hager in New York

producers. That spells higher prices. They've already risen in the U. S. because of the weak dollar, and demand there is softening. Meanwhile, although the French have cut back their consumption of cognac, rapid sales growth elsewhere is causing problems: The *eau de vie* that producers buy to make the liquor is in short supply. Critics claim Hennessy was slower than rivals to see this coming. Now, it's having to drop outlets and faces flat sales this year and next. Still, LVMH executives say they can produce 15% annual growth for the next few years.

Arnault's empire is structured as a pyramid of interconnecting companies, nearly all with outside investors (table, page 50). Lazard designed the structure to maximize Arnault's leverage. The pinnacle company, Arnault & Associés, 60% of which is owned by the Arnault family, has a market capitalization of $454 million. Yet it controls LVMH—the pyramid's base, whose $10 billion market capitalization is France's third-largest.

Louis Vuitton's yuppie appeal has won it fantastic growth in recent years. But a weak yen and a faltering U.S. luxury-goods market could end its hot streak

COMMON ISSUES. Although it's a dealmaker's design, Arnault certainly is talking like a manager these days. "Synergy" has become his favorite word. He plans to mesh his various businesses and run them all as one. As a first step, he has set up an intercompany forum at which he and other executives will attack common issues once a month.

Advertising is a prime example. Arnault plans an in-house agency to buy space at lower costs for his $400 million ad budget. He's also sketching luxury shopping complexes that would group his retailers together. Céline, Dior, Lacroix, Vuitton, Givenchy, and Loewe leather-goods shops would each have a separate, adjoining store on an upscale street. But behind the scenes, data processing and other services would be shared. The first venture will probably be launched in Asia next year.

On the fashion side, Arnault personally made the controversial decision a year ago to retire Dior's longtime artistic director, Marc Bohan. He picked Italian designer Gianfranco Ferré to replace him. That move was to rejuvenate the sagging company. Dior's styles were bland, and its women's ready-to-wear almost nonexistent. Things have improved. "Ferré has brought some drama," says Alan Grosman, general merchandise manager at Saks Fifth Avenue. Profits grew 47% last year, to $24 million, on sales of $130 million.

Now, Dior is taking the next step: opening its own stores outside France, to build an elegant image for its fledgling ready-to-wear collection. Two shops are on the way in the U. S., on Beverly Hills's Rodeo Drive in September followed by a November opening on Fifth Avenue in New York. "These will be real flagship stores" that will help boost Dior's department-store sales, says Béatrice Bongibault, Dior's energetic president of two years. She'll invest $5 million in the New York store. But Dior faces tough times in the U. S. The retailing industry is in turmoil, and "there's an awful lot of prestige trying to get into a very, very small market," says Colombe Nicholas, who ran the French company's American licensing unit until 1988.

More pressure is coming from Arnault. His ego is heavily involved in his attempt to establish Lacroix as a major new fashion house because it's one of the few businesses he has created from scratch. Lacroix is moving into ready-to-wear clothes, sold partly through a nine-shop European network that is to double in size in the next year. It's investing $40 million to promote its first perfume, C'est la Vie, due in U. S. stores this summer.

To manage Lacroix, Arnault has just named his closest aide: former law professor Pierre Godé—the man who put Arnault onto Boussac. Tall and laid-back, Godé predicts Lacroix will be one of France's top three couture houses in five years. "We may even displace Dior as No. 1," he says. "Why not?" It's possible, say some U. S. retailers. They say Lacroix's clothes have been too "costumey," but Lacroix has toned them down and is now a hot designer. Saks already sells more Lacroix designs than those by Dior or Givenchy.

Close to Arnault's heart, too, is Paris' Bon Marché department store. A bit fusty now, this landmark is to become an elegant Harrod's-style emporium. Recently, Arnault put in an upscale restaurant and upgraded some of the clothing departments. Eventually, "it will let us test new fashion concepts, to see how the market reacts," he says.

Gauging fashion-market reactions is a new activity for Arnault. But if he's going to make the transition from dealmaker to manager, he had better get the hang of it. Otherwise, the polite applause he so enjoys at fashion shows may vanish like last year's fashions.

By Stewart Toy in Paris, with Andrea Rothman in New York and bureau reports

Arnault's blunt management decisions—such as axing Dior's longtime creative director—have raised eyebrows

XEROX

If you can stand the pain, look at your company through the eyes of your customers.

We would like to express our pride and gratitude for having won the Baldrige Award. We'd also like to share with you some of the basic principles we discovered in our quest for quality.

1. You have to look at your company through the eyes of your customers—even if it hurts. You have to let them define quality for you.

2. You have to have commitment from the top down, from the CEO to the mailroom.

3. You have to establish benchmarks that really stretch you. Set impossible goals. Then meet them.

4. You must get your suppliers involved. In 1983, when we began our Leadership Through Quality process, 92% of parts received from suppliers were defect-free, a fair standard for the industry. Today we have attained 99.97% defect-free parts.

Our government has made quality a national imperative. In 1987 Congress created the Malcolm Baldrige National Quality Award. One financial journalist has called it "a national treasure." Another writes, "It takes plenty of work to capture the new national Holy Grail of quality. Happily, companies that lose get nearly as much benefit as the victors." (Jeremy Main, *Fortune*, April 23, 1990)

It is tough. We underwent a grueling scrutiny—some 400 hours of analyses and on-site inspections by the Baldrige examiners. What they're interested in is the process. But if you apply for it, you can't lose. It will expose your strengths and weaknesses unsparingly. And, if you're serious, it will provide a focus that will send a shiver of energy through the spine of your company.

Since quality became the driving force of our company, our copy quality has set the standard in the industry, and our 1090 copier has been named the best in the world. We have stemmed the loss of market share to foreign competition. We have increased the satisfaction of our customers. We have also increased our number of customers.

Xerox is committed to sustaining the quality process we have entered into. Above all, we have learned that in the race for quality, there is no finish line.

To find out more about the Xerox Quality Process and the Malcolm Baldrige National Quality Award, please write to: Xerox Corporation, P.O. Box 24, Rochester, NY 14692. Or call: 1-800-TEAM-XRX, Ext. 327A.

Malcolm Baldrige National Quality Award 1989 Winner

XEROX
The Document Company

© 1990 XEROX CORPORATION XEROX® is a trademark of XEROX CORPORATION

Categories covered in the application for the Malcolm Baldrige Quality Award.

1. ***Leadership.*** How has senior management contributed to the quality process?
2. ***Information and Analysis.*** How effective is your collecting and analyzing information leading to quality?
3. ***Planning.*** How have you integrated quality into your business plans?
4. ***Human Resource Utilization.*** What have you done to involve all employees? How have you informed them? Motivated them?
5. ***Quality Assurances.*** This focuses on the process put in place for sustaining quality.
6. ***Quality Assurance Results.*** The one category that actually looks at your products and services.
7. ***Customer Satisfaction.*** How do your customers like your products? How do you know they do?

9113
9113
UNION
PACIFIC

HOW FUJITSU HELPS A LEGENDARY RAILROAD MAKE HISTORY.

The Union Pacific Railroad is not just a company, it's a call to the consciousness of a nation. Created by Abraham Lincoln's signing of the Pacific Railroad Act of 1862, it laid tracks across a wild continent from Omaha, Nebraska to Promontory, Utah, where it met the Central Pacific coming from the sea. A golden spike marked the birth of America's first transcontinental railroad.

SETTLED THE AMERICAN WEST

Union Pacific settled the American West, carrying hundreds of thousands of pioneers into the world of wide open spaces. It made history then, and it's *still* making history: today it is one of America's most progressive railroads, with 23,000 miles of track in 20 states, 30,000 employees, and a reputation for far-sighted thinking in every area of its operations—including its remarkable communications network.

NATIONWIDE NETWORK

Union Pacific owns a private voice and data communications network, one of the largest in the world. Covering tens of thousands of miles nationwide and functioning as the railroad's central nervous system, it is extremely sophisticated and absolutely crucial to the company's success. Which is why, when Union Pacific recently decided to upgrade the network, it turned to Fujitsu.

TOP COMPUTER AND COMMUNICATIONS MAKER

Fujitsu is one of the world's top computer and telecommunications makers, with 100,000 employees, annual sales of $18 billion, and projects completed in a hundred countries. A high-tech giant that's a major force in the global information revolution, Fujitsu gave Union Pacific a multi-nodal integrated voice and data communications system that is the next generation of business telecommunications. The system will boost productivity, upgrade customer service, and help the railroad keep making history—by helping it be what it has always been: a living legend that knows where the future is.

Jim Merrick of Union Pacific talks to Jay Schrimpl of Fujitsu before the Fujitsu F9600 ISDN switching system. Union Pacific recently purchased a number of such systems, one of the most advanced in the world, to function as node points in its nationwide communications network. For information call Fujitsu Business Communication Systems at 1-800-654-0715.

FUJITSU

The global computer & communications company.

KKR IS DOING JUST FINE —WITHOUT LBOs

Taking minority stakes, building businesses—it's learning to prosper in a debt-phobic environment

Early this year, Kohlberg Kravis Roberts & Co. seemed destined to become another symbol of 1980s excess. It wasn't just that their $32 billion purchase of RJR Nabisco Inc. capped the decade with the biggest—and perhaps most dramatic—deal ever. In December, 1989, KKR's enviable track record with investors was tarnished by the bankruptcy of the $1.5 billion Hillsborough Holdings Corp., a Tampa-based construction concern. At the same time, KKR was furiously restructuring Seaman Furniture Co. to keep the Uniondale (N. Y.) retailer out of Chapter 11.

And if that wasn't enough to sow discord among the pension funds and other investors that spent the decade bankrolling KKR with almost reflexive loyalty, there were RJR's junk bonds. With some RJR issues as low as 60¢ on the dollar, it looked as though the rate RJR paid on the bonds might rise to suicidal levels when the time came for RJR to fulfill a commitment to keep the bonds trading at face value. "The view six months ago was that RJR could go either way," says a partner at a rival firm. "And if RJR went down, KKR might as well close up shop."

> 'THE VIEW SIX MONTHS AGO WAS THAT RJR COULD GO EITHER WAY. AND IF RJR WENT DOWN, KKR MIGHT AS WELL CLOSE UP SHOP'

Well, the shop not only is open but also is prospering. In a rapid-fire series of moves, KKR has demonstrated that even in the current environment of debt-phobia, it can bring deals to lucrative conclusions. The money it plowed into upgrading and promoting budget chain Motel 6 paid off on July 12 with a $1.3 billion sale to France's Accor, a 38% annual rate of return. KKR showed great patience in refusing to sell the remnants of Beatrice Co. until it got the $1.34 billion deal it wanted from ConAgra Inc. on June 7. The return on the original 1986 buyout: a rich 50% annually.

And on July 15, KKR quieted investor anxiety over its biggest deal. It agreed to pump up its equity position as part of a $6.9 billion recapitalization of RJR (page 60). "When Henry said he was relieved, that sums it up for everybody," says George Roberts, who runs KKR in partnership with Henry Kravis. "We want to get on with other things."

What other things? Basically, the dealmakers, who acquired something of a buccaneer reputation by purchasing and busting up companies in the 1980s, are talking about building businesses and aiding troubled companies in the 1990s. Besides pumping money into RJR, KKR has raised new capital for Safeway Stores Inc. by selling stock in the grocery chain to the public, and it is pushing its other companies (table, page 61) into new markets. In the case of K-III Holdings, it is assembling a planned publishing giant by acquisition. KKR is shopping for bargains in the shell-shocked banking industry, offering to take strong minority positions in capital-strapped companies, looking for debt-burdened companies that could use KKR's turnaround skills or financial acumen, and scouting out Europe as untapped territory for deals.

SLOWED TO A CRAWL. It's almost a sure bet that the new directions taken by KRR will not be as lucrative as its LBO tack. Already, KKR is projecting a drop in returns from the heady 40% annually earned in the early 1980s, to a more modest 20% to 25%. "The problem is, there aren't that many good opportunities out there," says Roberts. Despite an LBO fund of just under $2 billion, KKR hasn't made an acquisition since February, 1989, although it looked at 50 different transactions that year, from retailer Saks Co. to consumer product maker First Brands. With few raiders to conveniently put companies into play, a dearth of junk bonds and bank loans, and a pricey stock market, the LBO business has slowed to a crawl.

Without big eye-popping deals, KKR may be hard-pressed to retain the loyalty of investors. But aside from some grumbling over the large fees that the company is levying these days, investors have little but praise for KKR. Kravis doesn't see the changes afoot as radical.

KRAVIS, ROBERTS, AND RAETHER: EUROPE MA

/e're doing the same ng that we have al- ıys done. We pur- ase companies and ıke them better," ys Kravis. "The only ng that changes is w you raise your ney."

The changes are sig- ficant, however, as monstrated by K-III, New York publishing ncern. "KKR is seek- ; new ways of going rward, so K-III is a le like an R&D proj- ," says K-III Chief ecutive William Reil- The appeal of build- ; companies rather ın busting them up was not lost on R: Reilly, formerly president of Mac- llan Publishing Co., was a featured eaker at KKR's annual investor meet- ; held in San Francisco in May.

K-III grew out of KKR's 1988 bid for Macmillan. While Robert Maxwell won the bidding, the KKR partners got to know Macmillan managers. In July, 1989, KKR and former Macmillan executives bought the company's book club and a small trade-magazine group for $310 million. To Reilly, K-III is a "leveraged build-up," since each acquisition adds more debt. Among his six purchases so far have been the publications *Ward's Auto World* and *Electrical Wholesaling*, acquired from McGraw-Hill Inc., publisher of BUSINESS WEEK. They joined a lineup that includes *National Hog Farmer* and the Astronomy Book Club.

While the $200 million concern is tiny by KKR standards, Reilly has backing from KKR and 11 banks to expand K-III to a $1 billion company. K-III is capitalized with 60% bank debt and 40% equity from KKR and management, with KKR owning 75% of that equity. As for annual returns, Reilly expects them to hit 20% to 25% whenever K-III is sold, taken public, or recapitalized in 5 to 10 years. Says Kravis: "We would like to build up another Macmillan."

Building is the theme on another front. KKR plans to fold new acquisitions into the 15 companies it owns. Accounting for $40.5 billion in annual revenues, the companies have ample resources to finance acquisitions, even if new megadeals are out of reach for KKR. Says Kravis: "If those companies continue to grow in value—and that's all we did—we would have a phenomenal '90s."

ON THE SIDELINES. The advantage of growing by acquisition is that KKR still is in control. A bigger departure from the LBO formula is taking minority positions in companies. The idea is to take advantage of a specific opportunity from the sidelines. For example, KKR took a 4.9% position in Texaco Inc. in 1988, later selling out for a profit. KKR also owns 15% of ConAgra Inc., which it agreed to take as partial payment for Beatrice.

Another minority stake is KKR's 9.9% share of First Interstate Bancorp, the ailing Los Angeles bank (page 61). KKR sees special opportunity in the consolidation of the U. S. banking system. "We're thinking about investing some capital in a good bank to take advantage of the restructuring going on in the financial-services industry," says Roberts. He sees putting about $250 million into a midsize bank outside of New York or California and using the capital to buy other thrifts and banks.

Owning a bank would be even better. LBO firms traditionally have shied away from owning banks, discouraged by regulations. For example, to ensure that industrial companies don't own banks, any

LIFE AFTER MEGADEALS: KKR'S BLUEPRINT

- **Enhance value of existing holdings.** Recently infused equity into RJR, sold 10% of Safeway, and agreed to sell Beatrice and Motel 6
- **Build new companies through acquisitions.** Example: A $200 million New York publishing company it hopes will become a $1 billion concern
- **Buy financial institutions.** As the capital-short banking industry consolidates, KKR could pick up bargains
- **Take noncontrolling positions in public companies.** In some situations the firm would work with management to improve performance
- **Invest in busted deals.** KKR could buy overleveraged companies and turn them around with additional capital and better management
- **Explore opportunities in Europe.** The consolidation prompted by falling trade barriers in 1992 could be lucrative for American leveraged buyout and other financial knowhow

DATA BW

EW GROUND FOR PLYING THE ART OF THE DEAL

TO AN EXCEPTIONAL GRADE OF TEACHERS:

WINNERS OF THE BUSINESS WEEK AWARDS

FOR INSTRUCTIONAL INNOVATION

Congra

Two years ago, Business Week embarked on a very special project illustrating how business, government and educators were developing a partnership to create real and lasting solutions to America's education crisis. *"Endangered Species: Children of Promise"* was born—and became the largest special advertising section in magazine history. 10% of the advertising revenue from the section was donated to a special grants program, designed to reward educators who created and implemented highly successful programs in their classrooms. From 1300 entries, 184 dedicated, creative educators from across the country were selected to be so honored.

Business Week salutes these educators for their unswerving commitment to American education, and for their success in eliminating children of promise from the endangered species list.

Business Week and Macmillan/McGraw-Hill

YOU'RE IN A CLASS BY YOURSELF!

Adams, Ron *Mercer Island, WA*
Alter, E. Jane *Dayton, OH*
Armijo, Rudy *Phoenix, AZ*
Arnold, Thomas C. *State College, PA*
Askew, Lida *Houston, TX*
Bachnick, Janet *Olathe, KS*
Baker, Randy *Oklahoma City, OK*
Balasiano, Steven Jeff *Brooklyn, NY*
Barnett, Diane *Tucson, AZ*
Barnhart, Janene *Easton, OH*
Bebelaar, Judith *San Francisco, CA*
Benna, Gary *Tucson, AZ*
Blue, Judy *Santa Maria, CA*
Bolze, Sandie *Brookhaven, NY*
Bono, Vincent *Staten Island, NY*
Brinson, Leslie *Greenville, NC*
Bryant, Michael *Reno, NV*
Buck, Sharyn *Las Vegas, NV*
Burba, Ted *Grand Rapids, MI*
Campanese, Sharon *Philadelphia, PA*
Chakmakian, Christine *Oakland, NJ*
Chapman, John *Lawrence, MI*
Ciarleglio, Dawne *Paterson, NJ*
Ciavola, Michael *Wallingford, PA*
Clark, Barbara Ann *Checotah, OK*
Coates, Diane *Washington, DC*
Cohen, Carol *Brooklyn, NY*
Cohen, Ronni *Wilmington, DE*
Coulter, Claudia *Greenville, NC*
Cournia, Audrey *Sparks, NV*
Course, Eula *Houston, TX*
Crawford, Anna *Charleston, MO*
Crebase, Joyce R. *Oakville, CT*
Crockett, Janet *Goose Creek, SC*
Dagino, Ruth *Brooklyn, NY*
Dalcherone, Georgette *Tampa, FL*
Davis, Dianne *Corning, IA*
Day, Linda *Rochester, NH*
Debevec, Deborah, F. *Dayton, OH*
De Cruz-Saenz, Michele S. *Wallingford, PA*
Didimanoff, MaryAnn *Parsipanny, NJ*
Divelbiss, Ronald *Leo, IN*
Dixon-Hull, Emily A. *Sepulveda, CA*
Droge, Despina *Roxbury, MA*
Dudley, Charlotte L. *Gardena, CA*
Dunstall, Carol G. *Miami, FL*
Edelman, Anna *New Orleans, LA*
Ellis, Deena Caryl *Whitehouse, OH*
Engel, Judith S. *Bronx, NY*
Erickson, Ann *Reston, VA*
Esterle, Peter J. *Uniontown, OH*
Feay, Richard *Sepulveda, CA*
Ferris, Paul *Portland, OR*
Franchina, James *Spring Valley, NY*
Freiberg, Barbara *Baton Rouge, LA*
Frias, Kathy *Reno, NV*
Fuller, Lola M. *Raleigh, NC*
Gagermeier, Gary *Missoula, MT*
Gardner, Susan *Paterson, NJ*
Gibran, Jean *Boston, MA*
Goodloe, Mary *Dallas, TX*
Goodman, Marcy *Houston, TX*
Goodwin, Barbara *Climax, MI*
Gorrell, Nancy *Morristown, NJ*
Graff, Pat S. *Albuquerque, NM*
Graham, Donna *Charlottesville, VA*
Hampel, Terrie *Los Angeles, CA*
Harris, Roy *New York, NY*
Hedges, Brenda *Frederick, MD*
Hochenberg, Susie *New York, NY*
Horowitz, Susan *Brooklyn, NY*
Housley, Angela *Reno, NV*
Howell, James H. *Washington, DC*
Hughes, Patricia *Mobile, AL*
Hunt, Donna *Livermore Falls, ME*
Hurley, James *Waverly, IA*
Jackett, Dwane *East Chicago, IN*
Joachim, John Richard *Cincinnati, OH*
Johnson, Mariel *Estherville, IA*
Kayak, Elena *Whitestone, NY*
Kilbourn, Maureen *West Redding, CT*
Knight, Linda *Houston, TX*
Komarc, Marilyn *Raleigh, NC*
Koski, Kathleen, M. *West Yarmouth, MA*
Krieg, Eileen *Staten Island, NY*
Krieger, Evelyn *Newton, MA*
Kushner, Marcia *Houston, TX*
Ladd, Irene *Wolfeboro, NH*
Lail, Nancy *Marion, NC*
Lantos, Jeffrey *Los Angeles, CA*
Latta, Kathleen *Waterloo, IA*
Laures, Robert *Milwaukee, WI*
Lichtenstein, Beverly E. *Wayne, NJ*
Lillquist, Beverly *Minneapolis, MN*
Littlefield, Robert *Andover, MA*
Lovett, Worth *Fort Campbell, KY*
Lustbader, Susan *Philadelphia, PA*
Lyle, Kenneth *Houston, TX*
Lyons, Michael *Missoula, MT*
Lyons, Ronnie B. *Brooklyn, NY*
Malan-Uribe, Karen D. *Washington, DC*
Mason, Donna S. *Washington, DC*
Matte, Jacqueline *Birmingham, AL*
Mayo, Robert *Holliston, MA*
McAskill, Janice *Miami, FL*
McCandless, Mary Ann *Hartford, CT*
McCarty, Diane *Denver, IA*
McDaniel, Phila L. *Gardena, CA*
McDonald, Sydney Ann *Salt Lake City, UT*
McDonnell, Shirley *Rockton, IL*
McGee, Dennis *Campbell, KY*
McKaig, Nancy *Los Angeles, CA*
Megna, Steve *Vernon, NJ*
Meletiou, Joan *Knoxville, TN*
Meyer, Jacqueline *Syracuse, NY*
Miller, Barbara *Charleston, MO*
Mitchell, Judi *Greensboro, NC*
Moeller, Ali *Omaha, NE*
Moran-Brine, Rebecca *Willington, CT*
Morgan, Susan Marie *Olive Branch, MS*
Newsome-Taylor, Phyllis *Portland, OR*
Niemczura, Mary Ann *Syracuse, NY*
Norton, Tina *Syracuse, NY*
Notcher, Karen *Syracuse, NY*
Oechsner, Carl *Ossining, NY*
Pappas, Lambros Alex *Boston, MA*
Pardee, Kay T. *Miami, FL*
Pasmanick, Philip *San Francisco, CA*
Pearlman, Mitzi Ann *Littleton, CO*
Peecher, Kathryn D. *Chicago, IL*
Pepple, Doloris B. *St. Louis, MO*
Phariss, Colleen *Reno, NV*
Pirtle, Ann *Houston, TX*
Ponchick, Rosanne *Teaneck, NJ*
Porter, Karen *Santa Maria, CA*
Preston, Billie *Houston, TX*
Pulliam, Yvonne *Chicago, IL*
Rife, Darlene *Houston, TX*
Roseman, Lenore *Rockaway Park, NY*
Rosengart, Stan *Bronx, NY*
Rosengart, Terry *Bronx, NY*
Ross, Vernis E. *Los Angeles, CA*
Rubin, Annette *Miami, FL*
Schwarzwalder, Joan *Trenton, NJ*
Sconnely, James V. *Orlando, FL*
Seidenfeld, Alan *Vail, CO*
Sick, Wade *Plainfield, IA*
Sisk, III, Gordon *Knoxville, TN*
Skehan, John *Washington, DC*
Sloan, Annette *New York, NY*
Smith, Steven A. *Fairfield, CT*
Snyder, John *Las Vegas, NV*
Solano, Patricia *Libertyville, IL*
Somers Scott, Patricia *Summerville, SC*
Steinmetz, Paula *Hartford, CT*
Strand, Donna Regina *New York, NY*
Stuart, Estelle *Roslindale, MA*
Sweeney, Joseph *Jackson Heights, NY*
Thomspon, Donald H. *East Syracuse, NY*
Thompson, Michelle Ann *Indianapolis, IN*
Thornton, Todd P. *South Daytona, FL*
Tinder, Jan *Indianola, IA*
Tranquilla, Barbara *Homestead, FL*
Valverde, Robert *San Francisco, CA*
Van Wagenen, Linda *Middlebury, CT*
Verner, Brenda P. *Philadelphia, PA*
Vick, Lyn *Las Vegas, NV*
Vihonski, Judith *Oakland, NJ*
Walfish, Stanley *New York, NY*
Walker, Bill *Roseburg, OR*
Walker, Michelle *Roseburg, OR*
Walsh, Judy *Sepulveda, CA*
Wasserman, Nina *Brooklyn, NY*
Webb, Wayne *Houston, TX*
Werkheiser, Francine *Little Neck, NY*
Weyiouanna, Dawn *Shishmaref, AK*
Wheeler, Doris *Olathe, KS*
Wilkerson, Joan *Astoria, OR*
Williams, Rosemary *Vernon, NJ*
Willis, Elaine *Bagad, FL*
Wiltse, Ric *Grand Rapids, MI*
Winters, Larry *Missoula, MT*
Woltz, Richard *Brooklyn, NY*
Wong-Brazer, So-ching *San Francisco, CA*
Woska, Margaret, E. *West Haverstraw, NY*

RJR GIVES ITSELF SOME RUNNING ROOM

As RJR Nabisco Inc. Chief Executive Louis V. Gerstner Jr. tells it, the key players in history's biggest leveraged buyout never contemplated "a grand financing plan." They set out to alter RJR's capital structure gradually. But all that changed when several debt-laden companies defaulted, the junk-bond market collapsed, Drexel Burnham Lambert Inc. went bankrupt, and Moody's Investors Service Inc. downgraded RJR's debt. In this hostile climate, RJR and its chief owner, Kohlberg Kravis Roberts & Co., knew they had to develop a comprehensive refinancing plan. "We couldn't fail," says Karl M. von der Heyden, RJR's chief financial officer.

The result is a multifaceted $6.9 billion recapitalization announced on July 15—a plan that's a bit more generous to bondholders than expected, much more complicated, and definitely successful. RJR bonds surged on the news, bolstering the junk market.

In the plan, RJR gets $1.7 billion in new cash, in the form of equity, from KKR, and $2.25 billion in a new bank loan. RJR also plans to borrow an extra $1.15 billion under an existing pact and convert $200 million of a $600 million bridge loan from KKR into preferred stock. With the cash, RJR will pay off a $1.15 billion bank bridge loan and redeem $1 billion of expensive increasing-rate notes. And it will retire some $4.5 billion of its payment-in-kind (PIK) junk bonds, purchasing those due in 2007 on the open market and offering to exchange up to 85% of those due in 2009 for cash and new preferred stock. Meantime, RJR will reset the rates on those two issues, which total $7 billion, at 17% and 17⅜%—up from about 14%—to make them trade near par.

FAIR DEAL. When the program is completed, RJR will still be highly leveraged: Debt as a percentage of total capital will shrink from 96% to about 83%. Interest costs won't change much this year, owing to the hefty bank fees RJR paid to sew up the deal. But in 1991, they'll drop by $400 million, von der Heyden says. And PIK interest will accrue at a rate of about $1.4 million a day, compared with more than $3 million a day now. RJR's ratio of cash flow to cash interest will be a rich 2.9 in 1991, while the total interest coverage ratio will be a comfortable 1.5.

RJR-watchers like the deal. "It certainly appears to be pretty fair," says James R. Caywood of Caywood-Christian Capital Management, a major junk buyer. If anyone loses, it's KKR and its investors. Although KKR's stake in RJR will jump from 58% to about 68%, fully diluted, their return drops—from about 33.5% a year through 1995 to a still-satisfying 28% a year, one Wall Streeter calculates. To stakeholders, observes Douglas K. LeBon, a vice-president at Wilshire Associates, which advises many KKR investors, "what matters most is the health of RJR."

Its operations have been hearty all along. Second-quarter results, due on July 24, should show operating income climbing by 19% over the 1989 period, Salomon Brothers Inc. projects. For the year, bank documents indicate that operating income will near $3 billion on sales of about $14.5 billion. Now that, as Henry R. Kravis says, "we're not up against any short-term financial hurdles" that dictate decisions, management can just run the business. The permanent financial structure, Gerstner asserts, "allows us a lot of room to develop the company over the next few years." He won't say exactly how he'll do that. But don't be surprised if RJR starts emulating archrival Philip Morris Cos. with a grand strategic plan to buy more food businesses.

By Judith H. Dobrzynski in New York

GERSTNER: A $6.9 BILLION MASTER PLAN

company that owns 25% of a bank mus become a bank holding company, subjec to bank regulations.

Leave it to KKR to find a way aroun All KKR will say is that it has come u with a structure that would allow it t own a bank by limiting its stake, namin a certain number of outside director and leaving management intact. The in novative structure took 3½ years o close work with the Federal Reserv Board before it was approved, and i cost millions. KKR developed it for thei unsuccessful 1989 bid for MCorp, th Texas bank auctioned off by the Federa Deposit Insurance Corp.

Banks are a lot more promising tha restructuring troubled companies. A though Wall Street raves about restruc turing as the next financial jackpot, KK sees big problems. The promise here i that relatively small amounts of capita can be swapped for control of companie that are overleveraged but have stron market positions. A look at a host o candidates, however, revealed that pe ple paid too much for them, with jus one or two exceptions, says Pau Raether, a KKR partner. "We looked a Southland, Circle K, Interco. We didn' bid on any of those," he says. "We co cluded there wasn't as much economi value there as people still think ther is." All three companies are either ur dergoing a painful restructuring or hav sold out to other investors.

LANGUAGE BARRIER. The biggest frontie for minority investments is Europe KKR's main European foray to date ha been its attempt to bid for British super market chain Gateway Corp. in July 1989. After Kravis and Roberts quiet spent three solid months on Gateway a the invitation of management, KKR sti didn't like the outlook for the company— or the British economy. It was a smar move, since three investor groups ar locked in a stalemate for Gateway.

When the right opportunity knocks KKR wants to make long-term equity in vestments in European companies an use them as vehicles to buy other com panies. What's holding KKR up in cour tries such as Germany, France, and th Netherlands? "We don't speak the lan guage, don't have an office there, don' know companies' inner workings. W need a good partner," says Kravis, wh has spent the past few years talking t potential partners.

KKR can afford to be patient. This yea has already been a stunner, with th firm earning an estimated $400 millio from the planned sales of Beatrice, Mc tel 6, and Union Texas Petroleum alone Kravis and Roberts say that kind of suc cess hasn't stopped them from workin as hard as they always have, althoug

FIRST INTERSTATE: A BIG TEST OF KKR'S PATIENCE

When First Interstate Bancorp urgently needed to raise capital last winter, one of the rst people the Los Angeles bank approached was George R. Roberts. A ounding partner of Kohlberg Kravis oberts & Co., Roberts gave executives at the bank a ympathetic hearing. nd in February, KKR ventually agreed to uy 40% of an 8.6 million-share offering. he titan of takeovers ven agreed to sign a tandstill agreement, arring it from purhasing more shares or two years.

CARSON: MAKING SOME HEADWAY

Barely five months ter, however, other irst Interstate investors are counting on KKR as an ally to eiher shape up or sell ff the slumping ank. Indeed, shareholders have seen e stock slide to 40 from a fall peak of 0. Says John Neff, whose Wellington Iangement Co. holds a 4.9% stake in e bank: "I guess they have some hort-term patience. And if management doesn't shape up, they'd add their weight to disgruntled investors."

KKR, which has a 9.9% stake in the bank, insists it is willing to wait out the troubles. Roberts says First Interstate is a "good long-term investment." And First Interstate CEO Edward M. Carson, who replaced the feisty Joseph J. Pinola last June, believes him. "We are absolutely convinced they are passive investors," he says. First Interstate should be a good test of whether a post-LBO KKR has the patience for investing 1990s-style. As it stands, there is good reason to believe selling the bank would be more profitable than investing in it. First Interstate has $55 billion in assets, a much-envied franchise in the lucrative California market, and branches in 14 states. And takeover talk has periodically buoyed the otherwise battered First Interstate stock.

There's no shortage of potential buyers. Wells Fargo & Co. of San Francisco and Los Angeles rival Security Pacific Corp. have said they would favor a friendly deal. The list of suitors could grow next year, when California's interstate banking ban lapses.

SLOW PROGRESS. True, Carson is making some headway in fixing the bank. He is trying to dispose of the problem loans, mostly in Arizona and Texas, that have cost the bank $1.7 billion in the past two years. But progress has been slow. On July 18, the company announced that second-quarter earnings fell 8%, to $95 million.

Further deterioration in First Interstate would probably enable KKR to exert pressure on Carson or the board to accept a friendly takeover. And KKR already is on good terms with at least one other major shareholder. The state of Michigan's pension fund, which has $400 million invested in KKR's leveraged buyout fund, owns 10% of First Interstate's stock. Indeed, the biggest challenge facing KKR might not be convincing the board to sell but getting top dollar for the bank. If so, getting a good price is one task at which KKR has already shown considerable skill.

By Kathleen Kerwin in Los Angeles, with Leah J. Nathans in New York

ch finds time for a growing number of arities. Kravis recently became chairn of the board of trustees of Thirn/WNET, New York's public television ation, and he has almost finished raisg $50 million for Central Park, which rawls beneath his office windows. berts recently became a director of ildren Now, a nonprofit advocate for ildren's rights.

Fame and fortune haven't changed e basic operation of the firm since the parture of founding partner Jerome hlberg Jr. in 1987. KKR still is a lean professionals, and even the reception- is an equity owner. Kravis is not ove an occasional trip to Lansing, ch., to keep Michigan State Treasurer bert Bowman, an early KKR institunal investor, informed. Roberts works t of San Francisco with two other KKR rtners, Robert MacDonnell and Miael Michelson. New York-based ether is the partner in charge of RJR.

Despite the decline of the LBO busiss, KKR still enjoys a symbiotic relanship with Wall Street. The Street has ofited by setting up its own LBO shops d jumping on the bandwagon that KR pioneered—and KKR was smart ough to spread the huge fees on its vn deals among many Wall Street firms. "They generate more investment banking business than any entity in the world," says one investment banker. "KKR is the first call with a good idea."

The golden touch extends far beyond Wall Street. KKR has built a loyal infrastructure of bankers, headhunters, lawyers, accountants, and best of all, investors. That is largely due to the profits KKR has generated for them over the past decade. The state of Michigan, an investor since 1982, has earned annual returns of 40% on $400 million, far more than Treasurer Bowman earns on most of the $19 billion he manages.

THE HEAVYWEIGHTS IN KKR'S PORTFOLIO

Company/Business		1989 revenues Millions
RJR NABISCO	Food, tobacco	$12,764
STOP & SHOP	Supermarkets	4,600
OWENS-ILLINOIS	Insulation, fiberglass	3,605
FRED MEYER	Retailing	2,073
SAFEWAY STORES	Supermarkets	2,073
HILLSBOROUGH HOLDINGS	Construction	1,429
DURACELL	Batteries	1,249
SEAMAN FURNITURE	Home furnishings	279
K-III HOLDINGS	Publishing	200

DATA: ANNUAL REPORTS

KKR's biggest problem is unhappy bondholders, with whom it has had nasty run-ins over Seaman and Hillsborough. Bondholders are particularly disappointed over Hillsborough, whose massive asbestos liability helped push it into Chapter 11 reorganization. Its senior bonds trade at 65¢ on the dollar. "The fact is, KKR will have a hard time selling bonds like they have in the past," says Kevin McCabe, an analyst at bond house R. D. Smith & Co.

'TOUGH ACT.' The bigger issue is whether KKR's success will overshadow anything it can accomplish in the 1990s. "It's a tough act to follow," says one of the firm's boosters, John Canning, president of First Chicago Venture Capital. "These are new strategies. There is no historic evidence they will work."

And won't Kravis and Roberts lose their enthusiasm as they chase deals that pale by comparison with the elephantine RJR? The firm has no intention of giving its investors' money back early for lack of rich deals, as Coniston Partners did. "We can promise you that," says Kravis. "It's still fun." Making money can have that effect on people.

By Leah J. Nathans in New York

FELLHEIMER'S DREAM OF A $10 BILLION BANKING FRANCHISE IS CRUSHED—AND HIS FUTURE AT EQUIMARK IS UNCERTAIN

EQUIMARK: THE STRATEGY THAT FELL TO EARTH

Its bondholders rejected a bid to take over National Bancshares

A year ago, Alan S. Fellheimer could barely contain his excitement. The chairman of Equimark Corp. had just outmaneuvered several big banks to win tentative approval from regulators to acquire troubled National Bancshares Corp. in San Antonio. The government-assisted deal would boost the Pittsburgh bank holding company's assets to $6 billion from $3.8 billion. So proud was Fellheimer that he devoted two pages to the deal in Equimark's 1989 annual report and displayed the National Bancshares logo on the cover.

Nowadays, however, the annual report is a haunting reminder of an expansion strategy gone awry. In late April, Equimark's takeover bid was rejected by the Texas bank's bondholders. For Fellheimer, 47, who once boasted that he wanted to create a $10 billion banking franchise, it was a crushing personal defeat. "This was his Waterloo," says a former senior executive.

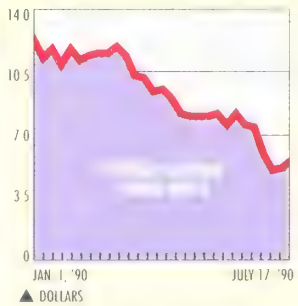
The setback also comes at a time when the bank is grappling with a slew of problems on its home turf: Sour real estate loans loomed large in Equimark's $15.4 million loss in the first three months of 1990, the first quarterly loss in five years. And Fellheimer has warned investors that there could be a second-quarter loss of up to $17 million. Fellheimer defends his record at the bank, arguing that Equimark's problems are similar to many other banks'. But his future is uncertain. The Texas deal caps a series of failed takeovers and poorly timed acquisitions from Idaho to Philadelphia (table). And board members are growing impatient. Even Fellheimer admits his expansion strategy didn't work.

WONDER YEARS. It wasn't long ago that Fellheimer was viewed as a miracle worker. A lawyer turned banker, he took over as chairman of deeply troubled Equimark in 1985. At the time, its branch system consisted of 78 offices scattered around Pittsburgh and its suburbs. It also had a passel of bad Third World and real estate loans. The Federal Deposit Insurance Corp. even threatened to close the bank in 1984.

Fellheimer moved fast. He slashed nonperforming loans and also helped recapitalize the bank by getting investors to put up $25 million. He personally put up $1.5 million for the cause. In the past two years, Equimark's profits have totaled $48 million, a far cry from the $80 million in losses that the bank had from 1981 to 1984.

Still, these improvements weren't enough for Fellhemier. The son of a door-to-door salesman, he drove a cab in his hometown of Philadelphia to put himself through Temple University. And he brought the same hard-nosed ambition to banking. With Equimark on the mend, Fellheimer an-

EQUIMARK'S STOCK IS TUMBLING



DATA: BRIDGE INFORMATION SYSTEMS INC

nced plans in 1987 to expand its ch by buying and fixing troubled ks and savings and loans, with the o of other investors.

ellheimer embarked on his expansion e in 1987, with the purchase of Liber- Savings Bank in Philadelphia. But the ft, with 19 branches and $680 million ssets, lost $1.8 million last year. Like- e, Equimark's decision in 1989 to in- e capital into Treasure Valley Ban- p in Boise, Idaho, in return for 90% of bank's stock, has backfired. With million in assets, the bank lost 0,000 in 1989. In each case, the insti- on ran afoul of bad real estate loans.

Texas deal was a nce for Fellheimer salvage his strategy. h $2.3 billion in as- s, troubled NBC had appealing qualities. consumer business been picking up. l while NBC's losses e totaled a hefty 9 million since 1986, FDIC was willing to tribute $250 million he deal.

he FDIC was so ea- it even let Equi- rk take over man- ment of the Texas k in July, 1989—be- e the deal was final- l. NBC Chairman hard W. Calvert de- ibes Fellheimer's ategy as "competent l accurate." Prob- ns cropped up, ugh. Equimark con- oned its offer on re- ing tenders from at st 85% of the holders $25 million in deben- es issued by NBC. offer would have l the debt holders ut 31¢ on the dollar their securities, but y wanted at least . An FDIC official s the agency made it clear from the rt that the offer couldn't be changed. lheimer failed to get that message oss. "Everybody believed it was just luff," says one bondholder.

ome bondholders say Fellheimer's le was one of the reasons that they n't trust him. For the few days a ek Fellheimer was in San Antonio, uimark bought him a $500,000 condo- nium in the tony Alamo Heights sec- n. The bank also paid the rent on rtments for his Pittsburgh secretary l his chauffeur, who drove Fell- mer's restored 1962 Rolls-Royce and ubled as his bodyguard.

Fellheimer says providing residences for himself and 15 or so other Equimark executives at work there "was cheaper than paying for hotel rooms." But the perceived extravagance clearly annoyed creditors. They "wanted a tight ship, and Mr. Fellheimer was running a luxury cruise line," says Jay H. Lustig of Drake Capital Securities Inc., which represented many of the bondholders.

Bondholders and NBC executives also found Fellheimer gruff and inflexible. A Texas businessman still shakes his head when he recalls an incident he witnessed during lunch in the NBC dining room. He says Fellheimer lost his temper and threatened to fire the maître d' because his pasta was served with vegetables on top, instead of plain. Fellheimer denies that the incident ever occurred. "There are so many stories about me that are apocryphal," he says.

Even if Fellheimer could have persuaded bondholders to accept his plan, it's questionable whether he could have cinched the deal. Under the terms, Equimark had to come up with $116 million in fresh capital. But the bank's own resources weren't enough. And efforts to raise roughly $85 million from private investors fell far short.

Fellheimer says he had lined up bridge loan commitments from Merrill Lynch & Co. and Oppenheimer & Co. to make up any shortfall. But the terms were stiff. Fellheimer says the bridge loans had to be paid back within six months. If not, the credits would be repaid with Equimark stock, seriously diluting the bank's shares. Equimark didn't submit a new bid after its original transaction fell apart. NCNB in Charlotte, N. C., acquired nine of NBC's 12 banks in June.

SLIMMING DOWN. With that deal gone, Equimark is focusing on its own problems, such as reducing expenses. Recent layoffs and departures have included some high-ranking executives, such as Fellheimer's wife, Judith, an executive vice-president, and Equimark President Claire W. Gargalli. Bad loans—a result of the softening real estate market—will be harder to cope with. In the first quarter, Equimark added $24.5 million to bad loan reserves.

Fellheimer says he is out of the acquisition business and will concentrate on retail and small-company lending. No one stands to lose more from the bank's woes than Fellheimer. He and his wife own roughly 8% of Equimark's stock—a $9.5 million investment. But with common shares trading at $5.50, nearly a 65% decline in the past year, Fellheimer's paper loss is estimated at about $4.5 million.

Despite the setbacks, Fellheimer says he has no immediate plans to step down. But he doesn't rule out the possibility of resigning after he nurses Equimark back to health. Fellheimer says the board will decide on "a management structure then. That could be in six months, 12 months, or even 18 months."

Fellheimer will have to show results soon. The board hasn't given him an ultimatum, says one director, "but it's fair to say we don't need [a CEO] with a base salary of $500,000." Last year, Fellheimer pulled down $1.2 million in salary and bonuses, more than the CEOs of larger Pittsburgh rivals Mellon Bank and PNC Financial Corp. In at least one respect, Fellheimer made the big time.

By Michael Schroeder in Pittsburgh, with Wendy Zellner in Dallas

FELLHEIMER'S TROUBLED TRACK RECORD

NATIONAL BANCSHARES CORP. Regulators tentatively approved Equimark's purchase of the San Antonio (Tex.) bank last year. But bondholders rejected Equimark's offer last April to pay 31¢ on the dollar for their securities. Creditors wanted at least 50¢

TREASURE VALLEY BANCORP. Equimark infused $2.8 million of capital into the Idaho bank in return for 90% of the bank's stock. But Treasure remains a money loser and is now up for sale

BANKS OF MID-AMERICA Equimark lost out on a plan to recapitalize this $2.5 billion-asset bank in Oklahoma City when local businessmen put together a better deal in June, 1988. Equimark would have taken a 19% share in the bank. Fellheimer planned to become CEO

LIBERTY FINANCIAL GROUP Equimark paid $47.3 million for the Philadelphia thrift in December, 1987. It later merged its Philadelphia branches with Liberty's offices. With $680 million in assets, Liberty is plagued with bad real estate loans. It lost $1.8 million last year

DATA: COMPANY REPORTS, BW

IS THE PAPER INDUSTRY ALMOST OUT OF THE WOODS?

Could be—some shrewd contrarians are buying big

Investors in paper and forest-products stocks are almost as rare as the spotted owl. The stocks are so shunned that they sell at price-earnings ratios 40% below the market average, and some even trade at half their book value. The Dow, flying above the treetops near 3,000, is up 8.3% this year—but International Paper Co., the sole forest-products company in the average, is down 3.7%. By most measures, paper stocks have not been this cheap in half a century.

So is it time to start buying? Some contrarians think so. They say that the recent designation of the spotted owl as an endangered species—considered by many investors to be a disaster for the timber business—could in fact benefit some big companies. The potential losers are loggers and small, privately owned mills that buy logs cut on federally owned land. The winners: companies that cut timber on their own property, such as Georgia-Pacific, Louisiana-Pacific, Weyerhaeuser, and Willamette.

'VERY COMPELLING.' "This industry is the low-cost producer in the world," says Rama Marda, a senior analyst at Manning & Napier Advisers Inc., an investment firm that has $3 billion under management. That, along with the stimulus of a weaker dollar, should allow U.S. paper exports to grow 11% this year atop 1989's gain of 10%. "Yet we can find so many stocks selling at less than half their asset value," says Marda. "That's very compelling."

And the contrarians are putting their money where their analysis points. Manning & Napier has some $445 million invested in IP, Georgia-Pacific, Champion International, Boise Cascade, and Weyerhaeuser. Warren E. Buffett put $300 million of Berkshire Hathaway Inc. funds into Champion in December. And Loews Corp., the conglomerate run by the value-conscious Laurence A. Tisch, has small stakes in Champion and Weyerhaeuser, too.

The paper stocks didn't sink for nothing. Pulp prices are plummeting because new facilities planned during the industry's 1987-88 boom are coming on stream in a time of weak demand. Lumber sales are also slack, with homebuilding near recession levels.

Most analysts don't think the industry will recover until 1992. Indeed, on July 16, Boise Cascade reported that second-quarter net income declined 69% from the comparable period in 1989. Still, the news is not all bad. Second-quarter profits at Temple-Inland Inc. turned up 23%.

The paper bulls believe that the turnaround will come sooner than 1992. Paul Ehrlichman, vice-president for portfolio management at Brandywine Asset Management Inc. in Wilmington, Del., thinks the worst has passed for the industry. Says Ehrlichman, whose firm has 12% of its $1 billion portfolio in paper stocks: "Next year, we're going to see some positive surprises."

Another contrarian, David A. Katz, chief investment officer of Matrix Asset Advisers, adds that paper stocks are attractive because many companies sell below replacement value. He estimates that Champion, at 29⅛, has a replacement value of 45 to 50. So the industry slump could lead to consolidation, such as Georgia-Pacific's takeover of Great Northern Nekoosa Corp. earlier this year. And as environmental pressure increase, it will be cheaper to buy existing mills than to build new ones.

Those paper stocks that have bucked the industry trend may still have more to go on the upside. Tissue makers are benefiting from low prices for pulp, the raw material they use to manufacture their goods. Kimberly-Clark Corp., which makes Kleenex, is near record highs—and is getting a lift from the baby boomlet's demand for its Huggies disposable diapers. The stock of Scott Paper Co., with vast international operations, should also continue strong.

NEW WRINKLES. Niche players are also attracting interest. "Those doing well are specialized companies that manufacture to individual customer requirements," says George A. Haloulakos, an analyst with Dain Bosworth Inc. in Seattle. That includes specialty papermaker Wausau Paper Mills and Mosinee Paper, both based in Wisconsin, and TJ International, an Idaho maker of high-quality structural products for the premium housing market. All have good earnings prospects. And the industry's large companies might follow IP's idea and buy niche businesses to lessen their vulnerability to commodity-like pricing.

Wall Street's stars over the past year have been the stocks whose profits are increasing at a nifty clip. But if the market continues its climb, investors may soon look for the stocks left behind. And in that group, few industries can match the performance of the paper companies.

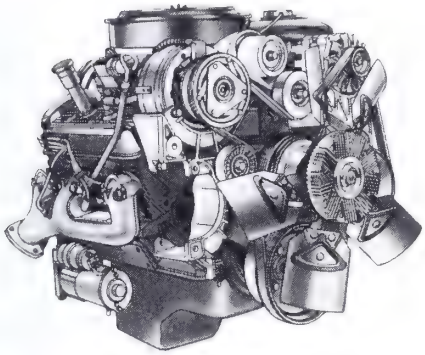
By Dori Jones Yang in Seattle

PAPER STOCKS THAT STAND TALL

Company	Price	P-E ratio	Dividend Yield
GEORGIA-PACIFIC	47⅞	6.8	3.3%
Strong Southern producer, spotted owl beneficiary. But debt is high			
INTERNATIONAL PAPER	54⅜	7.6	3.0
Hurt by weak pulp, paper prices, but cash flow good, big in Europe			
JAMES RIVER	26⅝	10.8	2.2
Costs slashed, big tissue producer should post profit gains			
KIMBERLY-CLARK	82⅛	15.8	3.3
Record sales, great earnings, diapers benefit from baby boomlet			
LOUISIANA-PACIFIC	36¾	7.8	2.7
Leader in wafer board, stable cost structure, big in South			
MOSINEE PAPER	19¾	NMF	1.6
Specialty paper, institutional markets, restructuring troubled subsidiary			
SCOTT PAPER	49⅜	10.3	1.6
Tissue maker strong overseas, especially in Europe			
TJ INTERNATIONAL	23¼	11.2	1.8
High-quality building products, expanding share in weak housing market			
WAUSAU PAPER MILLS	42¼	16.0	1.6
Customizes colored papers, pressure-sensitive backings, food packaging			
WEYERHAEUSER	25⅝	17.4	4.6
Restructuring could boost operating profits $700 million over five years			

DATA: BW INTERVIEWS WITH ANALYSTS, BRIDGE INFORMATION SYSTEMS INC.

Two Powerful Reasons To SmartLease An S-15 Jimmy.



4.3-liter Vortec: Most V-6 horsepower in its class.

A new 1991 S-15 Jimmy has a standard 4.3-liter Vortec engine, an engine that gives you the most V-6 horsepower and torque available from any truck in its class. That's more horsepower for highway driving, off-roading, and a 5,500-lb towing capacity.*

And right now, for a limited time only, you can get a SmartLease summer special on a 1991 S-15 Jimmy. SmartLease can let you drive a lot of truck for your money. And SmartLease can give you low monthly payments once you've decided on the right truck for you.

For example, for only $298.72 a month, you can lease an S-15 Jimmy 2-door 4X4 that carries a manufacturer's suggested retail price of $19,542.**

GMC TRUCK SMARTLEASE by GMAC

SmartLease:℠ The power to get an S-15 Jimmy 2-door.

Your dealer can also show you additional SmartLease programs available on other trucks in the GMC Truck lineup.

Get the most truck for your money. Look into getting a SmartLease from your GMC Truck dealer.

For a catalog and the name of your nearest dealer, call 1-800-VALUE90 (1-800-825-8390) today.

*In a properly equipped four-wheel-drive model, including trailer, passengers, equipment and cargo. **48-month lease with total monthly payments of $14,338.56. $3,115.72 due at lease signing. (Includes first month's payment and a refundable security deposit of $325.) Option to purchase at lease end for $7,341.66. Purchase option price is fixed at lease signing and varies by model, equipment level, usage and length of lease. Lessee responsible for excessive wear and use, and mileage over 60,000 miles at $.10 per mile. Tax, license, insurance, title fees, destination and other options additional. Subject to approval by GMAC. You must take retail delivery out of dealer stock by September 26, 1990. Payments may be slightly higher in Alabama, Arkansas, Oklahoma and Texas. See your participating dealer for qualification details.

GMC TRUCK

It's not just a truck anymore.®

©1990 General Motors Corporation. All rights reserved.
Jimmy is a registered trademark of General Motors Corporation.
It's get it together...buckle up.

BY GENE G. MARCIAL

WHY LUBRIZOL LOOKS LIKE A SLICK PLAY

Specialty chemical companies have been standout performers this year—except for Lubrizol, the leading worldwide maker of chemical additives for automotive and industrial oils. It has attracted attention only since smart money started buying shares (chart) in recent weeks.

What's greasing the interest of some big investors? Besides expectations of a sharp earnings turnaround, whispers are that a couple of European chemical companies are interested in Lubrizol.

Stuart Shikiar, managing director of Prudential-Bache Investment Management, says that with or without a buyout, Lubrizol is an undervalued bargain. "The company is on the verge of a powerful earnings breakout that isn't yet reflected in its stock. It has a strong balance sheet with little debt."

He notes that Lubrizol's profit margins have been improving. For one, the price of its petroleum feedstock has been declining. Also, the company has been able to raise the price of its additives as demand has improved.

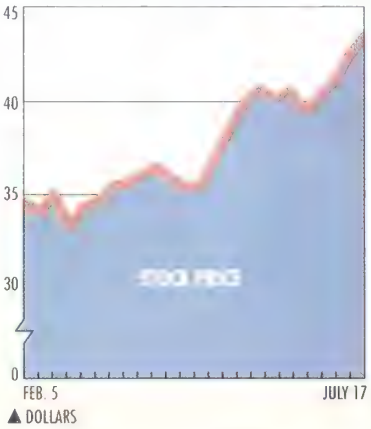
BIOTECH BETS. Shikiar figures that the improved earnings picture should show up in the second quarter, when he expects the company to report earnings of 90¢ to $1 a share, vs. analysts' estimate of 85¢. The company earned 70¢ in the year-ago quarter.

For all of 1990, Shikiar expects earnings of $3.20—up from $2.52 in 1989—and for next year, $3.75. Most analysts expect Lubrizol to earn $3 this year. "My estimates are higher than those of the Street because I believe demand for the company's products will rise tremendously because of the more restrictive emission and antipollution standards being set in the U. S. and overseas." Shikiar notes that Lubrizol's foreign operations account for some 60% of operating profits and more than 50% of revenues. On earnings growth alone, Shikiar figures that Lubrizol is worth $55 a share.

One buyout pro contends that Lubrizol is worth much more—at least $60 a share—in a takeover or merger, friendly or otherwise. Corporate insiders own [illegible] 2% of the company's stock. He adds that although several of the major U. S. oil companies had been rumored in the past to be interested in acquiring Lubrizol, a European company would be the logical suitor, since Lubrizol has a huge foreign presence. He's betting that either a French or German chemical company will "make a move on Lubrizol" before long. A Lubrizol spokesman declined comment.

Lubrizol has been an avid venture-capital investor in biotech startups. One of its early big bets—a 7% stake in Genentech—will soon pay off. Pharmaceutical giant Rhône-Poulenc has agreed to buy 60% of Genentech. Lubrizol officers also believe the company's stock is a bargain and have authorized the buyback of 2 million shares.

LUBRIZOL: GAINING UPWARD MOMENTUM



DATA: BRIDGE INFORMATION SYSTEMS INC

SUDDENLY, MEDCO IS FEELING FITTER

When Medco Research hired Oppenheimer in November to find ways of maximizing its shareholder value, Medco's stock flew to 20 a share from 15. But by April, the stock was down to 11. The reason: Oppenheimer conceded it couldn't find a buyer for Medco, a developer of prescription drugs mainly for cardiovascular ailments.

But there may soon be a lot of interest in Medco. It is said to be close to getting Food & Drug Administration approval for Adenoscan, a drug that has been under review for use as an "adjunct" to "thallium scintigraphy." Scintigraphy is a cardiac imaging process that's used to detect and evaluate coronary artery diseases.

One big investor estimates that FDA approval of Adenoscan will add about $10 million in licensing fees next year, and up to $40 million a year by 1993. Medco is still in the red, but this investor believes Adenoscan will put the company in the black. Medco received its first "product revenue" from sales of another drug—Adenocard, which is used to control rapid heart rate. It's the first Medco drug to win FDA approval. Japan's Fujisawa Pharmaceutical, which markets Adenocard through its Lyphomed unit, has also signed a pact to market Adenoscan in the U. S.

The betting is that once Adenoscan gets FDA approval, Fujisawa, which acquired Lyphomed last year, will move to buy Medco. Meanwhile, its stock has inched up to 12. The investor puts the buyout value of Medco at $25 a share. EGS Partners, an investor group, has a 6% stake. Medco President Manfred Mosk declined comment.

A BOTTOM-FISHER SPECIAL

With the Dow's climb to 3000, the list of stocks hitting new highs has grown longer. To find real bargains, however, some investors are scanning the shorter list of stocks hovering near their lows.

One such find: Paramount Communications. Value players, including Mario Gabelli, have rushed to scoop up shares, which are trading at 43, down from a high of 66 last year. Including his most recent buying, Gabelli has accumulated just under 5% of the company's 118.8 million shares outstanding.

The stock's drop, says a Beverly Hills money manager, will soon prompt Paramount to step up the buyback of its own shares. With Paramount sitting on about $2 billion in cash and the stock down close to its low, he says, Chairman and CEO Martin Davis "has to conclude that the stock is one of the best places to put some of Paramount's cash right now." Since Davis took over in 1983, Paramount has repurchased 47 million shares. No buybacks have been made this year, but the company can repurchase 6 million more shares under an existing plan.

Although Davis wants to improve shareholder value, he isn't encouraging any takeover bids now. A buyback is one way to lift the price. If that happens, the money manager believes Davis in the next six months will announce a major move that will involve either a large acquisition by Paramount or a merger deal "of some size." Paramount spokesman Jerry Sherman says the company doesn't comment on Street speculation.

IT'S THE WAY WE PUT THEM TOGETHER THAT SETS US APART.

At Motorola, we believe a cellular phone not only should work the first time out of the box, but we feel it should also be working years down the road.

And after we build them, we make it our business to ensure they're built right.

We put our phones through one of the most rigorous testing programs in the industry, exposing them to everything from temperature extremes to assorted shock and drop tests.

And this painstaking attention to quality pays off. Over the years the quality built into our phones has won over more than customers. It's also won some very prestigious awards. In 1988, Motorola received the first Malcolm Baldrige award, given by the President of the U.S. to recognize the quality of Motorola's equipment and services. And this year, Motorola received Japan's 1989 Nikkei award for creative excellence in products and services.

The fact is, when it comes to quality and durability, our phones don't just stand out.

They stand alone.

MOTOROLA
1-800-457-0400

Motorola Micro T•A•C and Digital Personal Communicator are trademarks of Motorola Inc. © 1990 Motorola Inc.

BIOTECHNOLOGY

THE MANY PERSONALITIES OF GENE-SPLICED DRUGS

Often, they hit targets that weren't the intended ones

It wasn't just serendipity: In early July, scientists at the Medical College of Wisconsin published a report that sent more than a few folks reaching for their reading glasses. Over a period of six months, Dr. Daniel Rudman and his colleagues reversed several signs of aging, including muscle atrophy and loss of bone mass, in a group of elderly men. The secret? Nothing new, actually. Rudman used an agent that's been on the market since 1985—gene-spliced human growth hormone, commonly used to treat children suffering from dwarfism.

BOPPANA, TUTTLE: A HYPERTENSION DISCOVERY

It's just the latest twist in a phenomenon sweeping through biotechnology. Researchers are discovering that drugs they thought they understood actually have many personalities. Those that failed as "magic bullets" for cancer, for example, are suddenly showing great potential in other ills, from AIDS to allergies to aging. "The spectrum will be enormous," says Dr. Jordan U. Gutterman, a leading immunologist at Houston's M. D. Anderson Cancer Center.

It makes good scientific sense. These drugs are all "biological response modifiers" (BRMs). Present in minute quantities in the body, they are vital products of the human chemical factory. When a virus invades the body, for example, cells instantly churn out chemical missiles called interferons. A major goal for biotechnology was to isolate these natural chemicals and use gene-splicing to generate highly specific drugs. In some cases, it was just that straightforward: Human insulin produced via recombinant DNA techniques effectively replaces what diabetics lack, but without side effects.

COMPLICATIONS. But in most cases, it hasn't been so simple. That's because BRMs are far more complicated than scientists first imagined. In fact, they usually perform multiple roles, influencing several of the body's finely tuned chemical pathways. Some of these unexpected "side effects" are untapped areas for drug discovery.

Take growth hormone: Since it was first approved in 1985, human growth hormone, or HGH, has quietly grown to be a $165 million market on far more than the strength of the roughly 15,000 children suffering from dwarfism. Since one of HGH's effects is to build lean muscle mass, a black market among athletes has arisen. And some scientists believe it could help treat obesity if used carefully. One of the drug's producers, Genentech Inc., is testing HGH for healing severe burns as well as osteoporosis. And Eli Lilly & Co., which sponsored the aging trial, has said it will pursue that market further, for obvious reasons. The profits from a fountain-of-youth drug could be enormous.

But growth hormone is just the tip of the iceberg. Last year, the BRM interleukin-2, which Cetus Corp. is hoping will soon win Food & Drug Administration approval to treat kidney cancer, was discovered to play a role in hypertension. In earlier cancer trials, low blood pressure was a dangerous complication of high-dose Il-2 therapy. But scientists Richard S. Tuttle and Devendra P. Boppana at Masonic Medical Research Laboratory in Utica, N. Y., prevented the onset of high blood pressure in rats specially bred to develop it by giving them small doses of Il-2. "We believe some types of hypertension are actually autoimmune diseases. It's a new era in treating them," says Tuttle, a senior research scientist who is leading the Masonic studies.

Gamma interferon, which failed to cure lung or colon cancer, is making a comeback, too. In January, Genentech applied for approval to market it for a rare disorder that makes children prone to infections, chronic granulomatous disease. CGD is a limited market. But Genentech is studying gamma to fight infections associated with trauma—potentially a huge market. "The antimicrobial aspects of gamma interferon were really surprising," says Susan Kramer, director of product development at the South San Francisco company.

ALPHA RISING. Perhaps biotech's most versatile drug is alpha interferon. From the start, doctors knew its antiviral properties could make it useful in a variety of conditions. But when it failed to cure cancer and the common cold, some wrote it off. Now, however, it's being tried on maladies such as AIDS, skin diseases, several kinds of cancer, and multiple

NEW USES FOR BIOTECH DRUGS

Some highly publicized drugs that originally had limited markets have scored surprising successes the second time around:

Drug/Company	Initial market	New targets
ALPHA INTERFERON *Biogen/Schering Plough, Genentech/Roche, Interferon Sciences*	A rare form of leukemia; venereal warts	AIDS, hepatitis C, multiple sclerosis
GAMMA INTERFERON *Genentech, Biogen*	Cancer	Rheumatoid arthritis, trauma-related infections
HUMAN GROWTH HORMONE *Genentech, Eli Lilly, Biotechnology General*	Hypopituitary dwarfism	Aging, burn treatment
INTERLEUKIN-2 *Cetus, Immunex/Roche*	Kidney cancer	Hypertension

DATA BW

erosis. Gutterman believes new links ween aging and the immune system l find a use for alpha there as well. As with human growth hormone, the 0 million market worldwide for alpha ludes wide experimental use. Doctors the National Institutes of Health, for ample, are using injectable alpha in nbination with AZT to treat AIDS pa-nts, with promising results. And in a ntroversial study in Kenya, an oral m of alpha interferon made by Ja-n's Hayashibara Biochemical Labora-ies was reported to alleviate the mptoms of AIDS in 99 patients who k it. Since then, alpha has become hot the underground AIDS drug networks, d controlled clinical trials are current-under way. "This is a no-brainer for a ion-dollar drug," says analyst Peter Drake of Vector Securities Interna-nal.

RD QUESTIONS. Curiously, the myriad w uses for BRMs could be a mixed ssing for companies. Admits one ex-itive of a leading biotech company: "It veals our infantile understanding of ese drugs." Indeed, picking the right mmercial project is no mean feat: Gen-tech, Biogen, and Cetus, for example, ent tens of millions studying a protein led tumor necrosis factor (TNF) to ht cancer. Despite years of study, it s not emerged from the labs.

Some agents, such as TNF, were shed into clinical testing too soon. verybody wants a half-billion-dollar ug right now," laments Gutterman. rees Cynthia Robbins-Roth, a former nentech researcher and expert on F: "They blasted into clinical trials, d they didn't get the answers they re expecting. Now, companies are tting smarter."

Yet there is no guarantee these new dings won't reveal even more uncer-nties. Cetus, for example, says other s have not replicated Tuttle's results, on July 16, it announced it was not ding any new patients to its ongoing udy of Il-2 in 20 hypertensives until ore basic information is learned about e drug's effects. There are also ques-ns about using growth hormones in rge quantities. Side effects range from abetes to arthritis. Worries Robert J. mple of the FDA: "What else do they ake grow? The hard questions are hat are the consequences of long-term eatments?"

Ultimately, these drugs may be given complex "cocktails," delicately bal-ced for individual patients. In the eantime, the more scientists learn out the interplay of human chemicals, e brighter the prospects for using em to treat disease.

By Joan O'C. Hamilton in San Francis-, with Naomi Freundlich in New York d John Carey in Washington

BusinessWeek

SAVE AT LEAST 15% OFF

the regular 1991 price with this special pre-publication discount offer (VALID UNTIL AUGUST 31st, 1990)

PLUS

Your chance to claim a leather security luggage tag as your bonus FREE GIFT when you order three or more items.

In U.S. Credit card holders may call

TOLL-FREE 800-247-2570

(in Iowa 800-362-2860)
Ask Operator 18 for Planners
Dept. BC3IDO1

PLANNERS

DESIGNED TO ORGANIZE YOUR FUTURE

PLUS FREE GIFT

Smart executives know there's no better choice of business gift than the prestigious – and equally smart! – BusinessWeek planners. They are great at organizing even the busiest working schedule. Featuring a full January through January week-to-view appointment calendar and 1991and 1992 monthly planning sections. Plus 90 pages of reference, business planning aids, full color Atlas, 30 City Profiles, 1991 Trade Shows and Conventions, a 2-year Forward Planner. Financial data on the world's largest banks and corporations . . . and more! Bound in rich bonded leather (your choice of black or burgundy) with gilt-edged pages and silken ribbon markers, and the option of having the BusinessWeek logo featured on the front cover or not.

The equally elegant matching Pocket Planner is available individually or as part of the specially matched Set.

CODE	PRODUCT	COLOR	1-2	3-4	5-9	10+	QTY	TOTAL US$
BW210	Planner Set Without B/Wk logo	Black	US$	US$	US$	US$		
BW206	Planner Set With B/Wk logo	Black	37.50	32.00	28.00	26.75		
BW226	Planner Set Without B/Wk logo	Burgundy						
BW220	Planner Set With B/Wk logo	Burgundy						
BW207	Desk Planner Without B/Wk logo	Black						
BW201	Desk Planner With B/Wk logo	Black	27.25	24.00	22.25	21.25		
BW216	Desk Planner Without B/Wk logo	Burgundy						
BW211	Desk Planner With B/Wk logo	Burgundy						
BW201	Pocket Planner	Black	14.50	11.45	10.45	9.35		
BW218	Pocket Planner	Burgundy						
Gold blocking of name per item			4.50					
Handling Packing per item			1.75					

Prices include delivery by surface mail but do not include local duties or taxes.
Dispatch commences September

U.K. Residents add VAT at Prevailing rate
N.J. Residents add 6% Sales Tax
TOTAL US$

Name (Mr/Mrs/Ms) _____
Company _____
Address _____
_____ City _____
State _____ Zip _____
Tel No: _____ Job Title _____

☐ *I need more information on larger quantity discounts and customization options*

☐ Payment enclosed (Cheque payable to BusinessWeek Planners)
☐ Bill my corporate Purchase Order (Company letterhead required)
☐ Charge to: ☐ AMEX ☐ DINERS ☐ MASTERCARD ☐ VISA
Card No: _____
Signature: _____
Exp. Date: _____
Name to be blocked: _____

Please mail to BusinessWeek Planners at: Dept BC3IDO1
P.O. Box 1597, Fort Lee, NJ 07024, USA. Fax 201 461 9808. or
25 Castle Street, High Wycombe, Bucks., HP13 6RU, England. Fax 44 494 465451. or
Suite C, 22nd Floor, 10 Ka Yip Street, Chaiwan, Hong Kong. Fax 852 5589246.

Developments to Watch

EDITED BY ROBERT BUDERI

ADD HEAT, AND THESE ALLOYS ARE PURE DYNAMITE

Back in the 1920s, Russian scientists stumbled onto peculiar metal alloys that could "remember" shapes. Below a certain temperature, they can easily be bent or compressed. But if later heated, they spring back to their original form. These so-called shape-memory alloys languished in the laboratory until the mid-1960s, when U. S. engineers experimented with them for satellite antennas that would unfurl when warmed by the sun.

What nobody foresaw was the wallop these alloys could pack in a tiny frame. This fall, professors at Japan's Kumamoto University, working with Nishimatsu Construction Co., will use the materials to demolish buildings. The team has shown that a bar of alloy about an inch long and half an inch wide can move 10 tons of concrete. To unleash this "canned power," the bar is compressed under 30 tons of pressure, causing it to shrink about four-hundredths of an inch. Then, when exposed to heat in the range of 80C, the bar expands to its original size in less than a minute. Researchers say that with groups of these bars, they can raze structures in urban areas where space is too tight to use explosives or wrecking balls.

PALLETS THAT SAVE MONEY —AND TREES

When it comes to saving money, not many people think of pallets, the crate-like platforms used to transport goods. But, rest assured, some have. After roaring success overseas, Britain's GKN PLC and Australia's Brambles Industries Ltd. are bringing to the U. S. a more durable pallet that the Grocery Manufacturers of America Inc. figures could save food processors and retailers $1.3 billion a year—and help the environment, to boot.

Like the old pallets, the new versions will be made of wood and cut to 48 by 40 inches. But they will employ a stronger timber. More important, the GKN-Brambles venture relies on software that tracks pallet movement from food company to retailer and back. Tougher pallets and tighter controls should reduce damaged goods—and demand for new pallets. The venture's first U. S. client is Procter & Gamble Co., which on Sept. 10 will offer the optional palletized shipping service to all its U. S. customers for the bulk of its products.

SCRAPING THE RUST OFF METALS R&D

During the 1980s, when U. S. specialty-metals makers were saddled with extra capacity, they slashed costs by skimping on R&D. Now, with European and Pacific Rim competitors boosting their R&D, that strategy threatens to come back to haunt them. In a competitive business where makers of aircraft and other high-tech products demand the latest and best in materials, falling off the leading edge can be devastating.

On July 18, after more than 18 months of negotiations between potential members, the industry moved to restore R&D strength by forming the Specialty Metals Processing Consortium Inc. The collaboration involves 10 companies, including Allied Signal Aerospace Co. and United Technologies Corp., and the Energy Dept. Plans call for spending $1 million a year to finance industry research in universities and support two member-company scientists who will conduct research at Sandia National Laboratories, home to one of the nation's most advanced metallurgy labs. After a year, the researchers will return to their firms, presumably armed with knowledge that will help the industry improve its R&D standing.

THIS ADD-ON MAY FREE THE PEACOCK IN YOUR PC

Applying personal computing power to engineering jobs has helped create a big market for PCs with add-on graphics boards—enticing designers in fields from microchips to haute couture. But even the most powerful IBM PCs and compatibles fall short when displaying the stylish graphics that designers love. Today's best PC graphics still leave rough edges on curves and display only 256 colors.

Now, a tiny Waltham (Mass.) company has found a way to smooth those edges and bring lush colors to PCs. Edsun Laboratories Inc. has devised a digital-to-analog converter chip that mixes two colors in every picture dot, or pixel. This lets a PC display up to 790,000 colors, matching the look of workstations costing $50,000. CEO Steven Edelson says that when his chip is available next October, it will add only $15 to the $200 to $600 cost of graphics boards. The company has already signed up Monolithic Systems Corp. in Englewood, Colo., a maker of add-in boards. And Edelson hopes to persuade PC makers such as Seiko Epson Corp. and Compaq Computer Corp. to incorporate the chip in their computer designs.

BMW PUTS A BACKSEAT DRIVER ON A CHIP

The latest cars offer a plethora of computerized wonders—like chips that control the engine or warn you if a door is ajar. But would anyone want a computer that took over control of a car if it judged the vehicle was being driven too fast or improperly for road conditions? BMW engineers are betting the answer is yes.

They've already installed an early version of their Heading Control system in cars at the auto company's research center in Munich. A camera above the rearview mirror tracks the center stripe and the line along the right side of the road. If a driver gets too close to either marker, a small electric motor integrated into the steering system is activated to put things right. Later versions will gauge road conditions and differentiate between broken and solid lines, so the computer can tell such things as whether it's okay to pass. Drivers being corrected might feel a tug on the wheel. But they can easily override the computer by continuing with whatever they are doing. BMW engineers say the system is at least five years from market. And they predict that once customers get used to the idea, they'll love it.

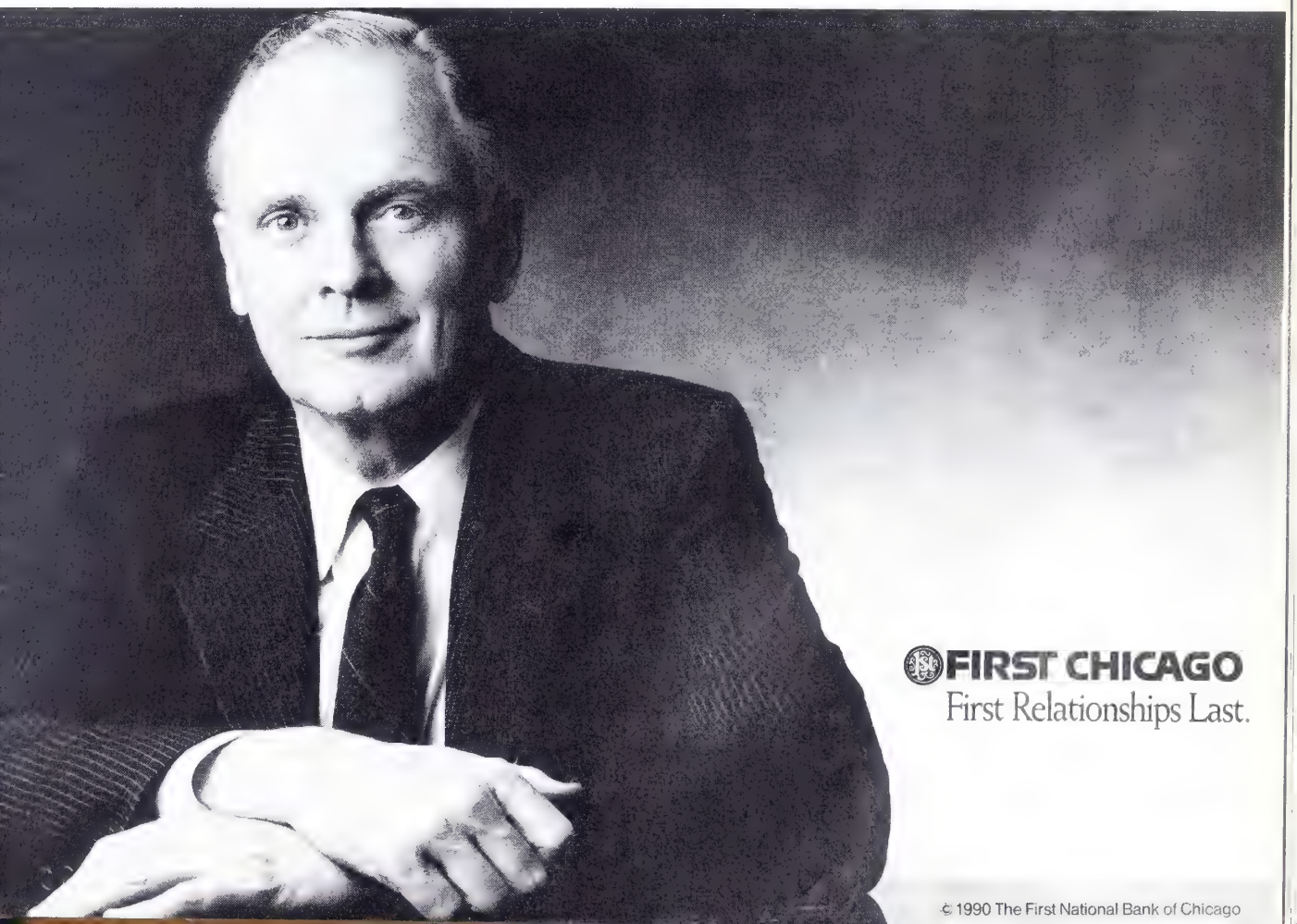
First Relationships Last. We've always believed in relationships. And still do. It's a philosophy which few banks adhere to these days, simply because they favor short-term profits over long-term growth.

We see things differently. In fact, we're such fervent believers in the concept of relationship banking" that we've organized ourselves like a partnership for the purpose of helping clients succeed.

True, our relationship philosophy requires a sizable upfront and ongoing investment in time and effort to understand your business. But that in-depth knowledge—along with a wealth of financial solutions—gives your First Chicago Relationship Manager a decisive edge. So you get fresher ideas, faster response times, and more creative, better crafted deals.

On the strength of this expertise and these resources, I believe that First Chicago now leads the nation in its commitment to long-term client relationships. I'm signing this on behalf of all my colleagues who are proving every day that "First Relationships Last."

Barry F. Sullivan, Chairman, First Chicago Corporation



© 1990 The First National Bank of Chicago

MAINFRAMES

CAN JAMES UNRUH RECHARGE UNISYS?

He's paring debt and driving the giant into 'seamless computing'

When James A. Unruh moved into the chief executive's office at Unisys Corp. last April, he had workers demolish a wall separating him from other executives. Symbolism was much on his mind: The genial North Dakotan, a world apart in style from his aloof predecessor, W. Michael Blumenthal, wants to make openness his hallmark. Whether lunching in the employee cafeteria, glad-handing new customers no matter how modest their orders, or laying out his revitalization plan for Wall Street analysts, Unruh is out to set a new tone for the troubled computer company. His agenda is "transformation, not just evolutionary change," he says. "We are recreating Unisys while in motion."

In his first 90 days as CEO, he named two new executive vice-presidents to reshape product development and marketing. To ease Unisys' staggering $3.8 billion debt load, he agreed to sell $150 million worth of convertible preferred stock to Mitsui & Co. And to win Unisys customers' and Wall Street's favor, he has publicly disowned Blumenthal's towering ambition to build a $20 billion company by 1993 through acquisition and internal growth. "The $20 billion in 1993 is gone," Unruh says. "I don't spend a moment of my time thinking about it." He'd be satisfied, he adds, just to provide a competitive return to shareholders by then.

RED, RED INK. That would represent quite an improvement. A wrenching, perhaps overdue restructuring last year handed Unisys a $639 million loss. Preoccupied with trimming 11.5% of the work force, or 10,700 people, the company barely eked out a 1.6% rise in sales, to $10.1 billion. So far this year, things haven't looked much better. Sales are off slightly, and continuing write-offs have delivered more red ink; a modest loss, or at best breakeven, is expected for the first half. Amid all the bad news, Unisys' stock has cascaded from a high of 30½ in February, 1989, to less than 14 in mid-July.

But now, the 49-year-old Unruh appears to be heading the company in the right direction. For one, the former chief financial officer's attention to the balance sheet marks a departure from Blumenthal's damn-the-torpedoes growth strategy. Chasing his dream of going head-to-head with IBM, Blumenthal in 1988 shelled out some $350 million in cash for Convergent Technologies, a maker of office workstations, and $320 million in stock for data communications maker Timeplex. The first purchase helped drive up Unisys' debt-to-capital ratio to 46% last year vs. an industry average of 20%.

CEO UNRUH: "WE ARE RECREATING UNISYS WHILE IN MOTION"

Unruh is combing the books for assets to sell and looking for other ways to ease the debt burden. Along with arranging the Mitsui debt-equity swap, he plans to sell off real estate left fallow by plant closings. He'd gladly sell off the unpromising $2.5 billion defense segment, but he doesn't expect to find a buyer in that depressed industry anytime soon. Meantime, Unisys has cut 2,300 jobs so far this year, lowering its employee total to 80,000. And Unruh promises to keep the pressure on costs.

SPINNING GLOBE. One cut actually bothers Wall Street: research and development. R&D spending is down about 5% from last year's $781 million. Unisys is "in a very fast-moving and highly competitive industry," warns Stephen P. Cohen, research director for SoundView Financial Group in Stamford, Conn. "It's going to take a while for them to work out their [technical] issues, and in the meantime, the world doesn't stop."

Unruh insists that Unisys is not standing still, technically or otherwise. It's spending more than ever on "seamless computing," in which networks of smaller machines work in concert with big, central mainframes. That calls for new software to improve the compatibility between the disparate product lines that Unisys inherited from predecessor companies Sperry, Burroughs, and Convergent. To mastermind that effort, Unruh has put Cyril Yansouni, a charismatic, Egyptian-born Convergent executive, in charge of developing all the company's computers, from mainframes to desktops.

Yansouni faces a stiff challenge. While trying to make sense of its established computer families, Unisys also is pushing heavily into "open systems"—computers based on industry-standard software and microprocessors. Demand is heavy for such machines, and Unisys already has won some big orders for them from large IBM customers. Trouble is, virtually all computer companies are selling similar gear, so price discounting is rampant and profit margins dismal. In fact, Unisys, with a relatively large, $1.5 billion, open-systems business, has yet to make a buck there—and Unruh won't predict when it

The new Fujitsu *dex*® *730* plain-paper fax cuts costs, increases productivity...

and blows a great big hole in the affordability barrier.

With the new Fujitsu *dex730*, you can have laser plain-paper facsimile at an affordable price.

Because the new ***dex730*** fax is one of the first laser plain-paper facsimiles ever to offer plain-paper luxury at half the cost. And the first to come with the backing of the only dedicated fax service organization in America.

With costs per copy only pennies a page.

The ***dex730*** prints on the inexpensive Letter & Legal pages you already use for the printers and copiers in your office. So now you can reduce paper inventories to a single common stock.

With plain paper, every fax is just like the original.

Crisp, sharply-defined laser-printed faxes that can go straight from machine to boardroom to archive with no time-consuming photocopies. No waste.

For more on the affordable ***dex730*** plain-paper fax, write Fujitsu Imaging Systems of America, Corporate Drive, Commerce Park, Danbury, CT 06810. Or better still, call us today on: **1-800-243-7046.**

dex is a registered trademark of Fujitsu Imaging Systems of America, Inc

FUJITSU

The global computer & communications company.

will. "Seamless computing is an endless search for perfection," Yansouni says, "and we have a lot of work to do."

Technical issues aside, Unruh's prime challenge is to get sales growing. That, he believes, calls mainly for selling customers complete solutions to specific problems, not just isolated hardware and software. To help, he has named Reto Braun, a former Burroughs executive who distinguished himself running Unisys' Pacific Rim operation, to executive vice-president. In the U. S., Braun is reemphasizing such selected markets as banking, government, and airlines, and trying to beef up Unisys' array of industry-specific software and related services, including network planning.

Unruh concedes that the going will be slow. Analysts expect the cost-cutting so far will help Unisys earn between $215 million and $265 million this year—but only if it can boost sales in the second half. That's a challenge, given a sluggish U. S. market and a softening one in Europe. Trying not to overpromise, Unruh declares that "Unisys is still a company under construction." To prove it, he can point to the spot near his office where a wall once stood.

By Joseph Weber in Blue Bell, Pa.

SOFTWARE

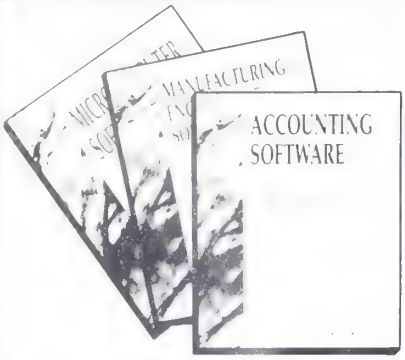
CREEPING UP ON THE MARIO BROS.

U.S. software companies are reentering the video game market

They're eating their own words. In the past few months, a flock of American computer software makers have suddenly renounced their long-held belief that video game machines are nothing more than a passing fad and therefore not worth writing programs for. "I'm like a man who has changed religion," says William L. "Trip" Hawkins, president of the San Mateo (Calif.) software house Electronic Arts Inc.

VIDEO GAMES' SHARP GRAPHICS AND LOW COST HURT PC GAMES

Why did he convert? Now that Nintendo Co.'s Super Mario Bros. and other video creatures have vaulted, smashed, and blasted their way into 24 million American homes, Hawkins and other U. S. entertainment software executives are finally convinced the games are here to stay. The U. S. wholesale market for video game software will jump nearly 30%, to $2 billion, this year, analysts estimate. It's growing at the expense of computer game software sales, which dropped 12%, to $288 million, in 1989. Says Bruce L. Davis, chairman of Menlo Park (Calif.) video game maker Mediagenic



Searching For Software?

ICP Software Directories make your search for software as simple as possible. These books have thousands of easy to read listings from software vendors worldwide.

— ICP Software Directories —

The following titles are available in bookstores nationwide

MICROCOMPUTER SOFTWARE for UNIX® Operating Systems ISBN 0-88094-182-0

MICROCOMPUTER SOFTWARE for APPLE® APPLE/MACINTOSH® Computers ISBN 0-88094-183-9.

CONSTRUCTION/TRANSPORTATION/CONSUMER INDUSTRIES SOFTWARE for IBM® & Compatible DOS Computers ISBN 0-88094-178-2.

ACCOUNTING SOFTWARE for IBM® & Compatible DOS Computers ISBN 0-88094-173-1.

WORKSTATION SOFTWARE ISBN 0-88094-184-7.

ACCOUNTING/BUSINESS SOFTWARE for OS/2® Computers ISBN 0-88094-180-4

DATA MANAGEMENT & PROGRAM DEVELOPMENT SOFTWARE for IBM® & Compatible DOS Computers ISBN 0-88094-179-0.

BUSINESS MANAGEMENT SOFTWARE for IBM® & Compatible DOS Computers ISBN 0-88094-174-X.

MANUFACTURING/ENGINEERING SOFTWARE for IBM® & Compatible DOS Computers ISBN 0-88094-176-6.

MICROCOMPUTER SOFTWARE for TANDY® Computers ISBN 0-88094-186-3.

PROFESSIONAL INDUSTRIES SOFTWARE for IBM® & Compatible DOS Computers ISBN 0-88094-177-4

OFFICE AUTOMATION SOFTWARE for IBM® Compatible DOS Computers ISBN 0-88094-175-8

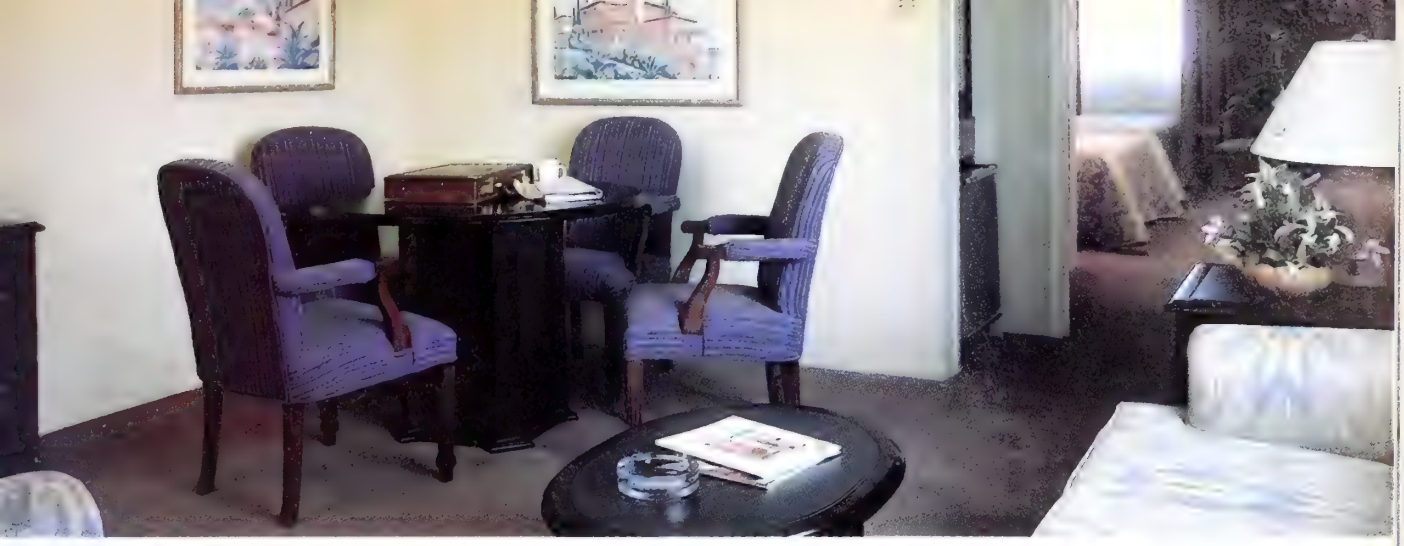
NETWORK/NETWORKABLE SOFTWARE for Microcomputers ISBN 0-88094-187-1

OFFICE AUTOMATION/PROGRAM DEVELOPMENT SOFTWARE for OS/2® Computers ISBN 0-88094-181-2.

MICROCOMPUTER SOFTWARE for AT&T Computers ISBN 0-88094-185-5.

FROM ICP 9100 Keystone Crossing • Suite 200 • Indianapolis, IN 46240
In Canada, H.B. Fenn & Co. Ltd. 416-677-8831

800-428-6179
317-844-7461 (IN)



Now you can afford to upgrade every trip.

For about what you're paying now, you could be staying in a hotel that was made for you. Embassy Suites® hotels. Each of our rooms is a two-room suite, so you can spread out and work or stretch out and relax. And each suite comes with a free, cooked-to-order breakfast each morning (everything from pancakes to muffins to cereals and fresh fruit) and two hours of complimentary beverages+ each evening. If you're looking for more from your hotel, call us. We think you'll find we were made for each other.

EMBASSY SUITES™ HOTELS

We were made for each other.℠

In Canada
1-800-458-5848
In Mexico
95-800-362-2779

Call 1-800-EMBASSY
or your travel agent.

+ Subject to state and local laws.
GARFIELD © 1978 United Feature Syndicate, Inc.

Inc.: "The home computer for the masses is the video game machine."

So PC software makers in the U. S. are introducing games for Nintendo-type machines, in competition with the mostly Japanese companies whose games have been feeding the frenzy. Among the new American video titles are Electronic Art's Populous, which allows kids to play God by creating and destroying the world. Two other holdouts, Software Toolworks Ltd. in Chatsworth, Calif., and Accolade Inc. in San Jose, Calif., have also joined the party.

DULLSVILLE. Those with 20/20 hindsight now agree that it's about time that software companies saw the light. "The entire American computer industry watched Japanese companies sign up to do Nintendo games while they chased the elusive rainbow of games for PCs," says Lawrence D. Siegel, executive vice-president for software at Atari Corp.

It was Atari that launched the first video game boom in 1976 and saw it expand to a $3 billion business by 1982. Soon, scores of companies rushed out games. Most were mediocre, though, and jaded juveniles quickly lost interest. Software companies, loaded with massive inventories, couldn't afford to create new programs, so the whole market collapsed, to about $100 million, by 1985.

Japan's Nintendo, though, reckoned that the market didn't really die, it just needed better games. So, after two successful years in Japan, it swept into the U. S. market in 1985. Nintendo licensed only a limited number of software makers for its machine and strictly policed the quality of their wares. Most American companies ignored the entire phenomenon, even though price tags suggested that they do otherwise: A PC that can support game-quality graphics costs $1,000 or more, compared with the $8 price of a Nintendo machine.

Despite the recent wave of converts there are still some that simply refuse. Sierra On-Line Inc., a software house in Oakhurst, Calif., almost went bankrupt in the Atari bust of the early 1980s. And President Kenneth A. Williams thinks another crash could well be ahead. Nintendo officials admit they'll sell only 1 million game cartridges in Japan this year, just half of last year's level and far below the 1986 peak of 40 million. Since the Japanese market is about two years ahead of the U. S. market, Williams sees doom just around the corner.

Proponents argue that the demand for video games is much like that for television: The market will survive as long as the games keep changing. And the machines are getting better: Sega Enterprises Ltd. and NEC Technologies Inc. have recently brought out systems based on 16-bit microprocessors, which can run much snazzier games than Nintendo's current 8-bit system. Nintendo plans to respond with its own 16-bitter later this year (BW, May 28).

CHILDREN PLAYING A SEGA GAME: THE COMPANY NOW OFFERS A SNAZZY 16-BIT MACHINE

GRAYING MARKET. What's more, the audience is changing. Nintendo says 39% of its players are now over 18. David A. Jacobson, an attorney, is a good example. He owns all three brands of game systems and is as big a fanatic as his kids. "It's a permanent part of entertainment in the home now," he says.

He might be right. But U. S. software companies just jumping on the bandwagon could be in for some nasty surprises. Ironically, if too many PC holdouts get into video machines all at once, it could be Atari-style déjà vu all over again.

By Richard Brandt in San Francisco

TS

OB WALSH'S END RUN ROUND NEARLY EVERYBODY

v expected the Goodwill Games to fly—but they're in the air

Seattle, Bob Walsh is the man the ocals love to knock. A brash and penly ambitious sports promoter former broadcaster, Walsh doesn't ll that well with Seattle's understat- usiness Establishment. Maybe it's use he likes to talk about his con- high in the Kremlin. Or maybe it's use he took it upon himself to com- the city and the state of nington to an undertaking y thought impossible: stag- he Goodwill Games, a mini- npics dreamed up by cable ıl Ted Turner.

t now, with the opening of Goodwill Games on July 20, h is proving what many ted: that Seattle can man- and fund a $100 million in- ational sports and cultural t. A nonprofit citizens p Walsh heads, the Seattle nizing Committee, is stag- the games, not Turner dcasting System Inc. The es have attracted top ath- , though ticket sales are up to expectations, and in- e from programs and novel- won't be clear until the es end on Aug. 5. It's sure e a cliff-hanger, but the nittee still has a fighting ce of achieving its goal: king even.

RATINGS. Walsh and his nittee have already over- e Olympian hurdles. The est occurred in 1986 with end of the first Goodwill es held in Moscow, con- ed by Turner after the U. S. otted the Moscow Olym- in 1980 and the Soviets otted the Los Angeles Games in . Ted's baby delivered low television ngs and a $26 million loss for Turner adcasting. Turner's board was ready bandon the games, and the Reagan inistration vowed never to allow n on U. S. soil. Enter Bob Walsh. h with his success in bringing the A Final Four and NBA All-Star bas- all championships to Seattle, he was determined to get the Goodwill Games there in 1990. A tireless, tenacious visionary never afraid of making big promises, Walsh and two others bid for the games without consulting many of the city's rich and powerful business and civic leaders. He proposed a Seattle organizing committee that would take on all the risk of running the events and raising most of the money. Turner loved the idea. Many in Seattle hated it. "I was labeled a Commie-lover," says Walsh.

WALSH: HIS GOAL IS TO BREAK EVEN ON THE $100 MILLION EVENT

The project is huge and complex. Roughly 2,500 athletes from more than 50 countries are expected in Seattle and six other nearby cities. Soviet art treasures are on display, the Bolshoi has danced, and a string quartet and theater troupe from the Soviet Union will also perform. Some 150 U. S. companies will attend an international trade show with buyers from 30 countries.

The whole enterprise is being run on a shoestring. With a paid staff of only 250, the organizing committee has raised more than $33 million for the games from corporate sponsors and $6.5 million for the arts, virtually all of it locally. After Boeing Co., which donated $2.7 million for a new pool, computer services, and the art exhibit, and Weyerhaeuser Co., which gave $1 million in cash and another $1 million worth of land for the pool, Seattle's corporate ranks look pretty thin.

ANGRY LOCALS. Several top local executives were annoyed at Walsh for committing the city to the games without gathering enough local support first. Early criticism of the project was so strong that U. S. West Inc. got cold feet and delayed for a year its decision to sponsor the marathons. "Normally, on things of this scope, we make a community decision. It kind of got off on the wrong foot," says Neil McReynolds, senior vice-president of Puget Sound Power & Light, which became a sponsor after initial apprehension. "But we jumped on board, and I'm glad we did. If companies like ourselves didn't get involved, it would be a black mark for Seattle." In the end, nearly 75 local companies signed on.

It wasn't only angry locals Walsh had to contend with. The International Olympic Committee objected to the Goodwill Games. Many in Congress opposed a grant to support the arts program, and the White House gave its approval only last year. The University of Washington, whose stadium will host many events, dragged its feet, and it took some heavyweight wrestling to get the state to agree to provide funding for security. As recently as May, organizers feared a Soviet invasion of Lithuania would stop the whole show.

Walsh, who is thin-skinned, is bitter from all the criticism heaped on him. Nevertheless, the 49-year-old is confidently planning a new career. He married his Russian interpreter in 1988 and will start using his contacts in Moscow to do consulting. Compared with staging the Goodwill Games, it should be a walk in Red Square.

By Dori Jones Yang in Seattle, with Chuck Hawkins in Atlanta

EDITED BY AMY DUNKIN

Planning

LIVING WILLS: IN DEFENSE OF YOUR RIGHT TO DIE

With today's high-tech medicine, the possibility of ending one's life hooked up to a life-support system is no longer as remote as it was. And when such situations do arise, loved ones must face the agonizing decision of whether to end life support. That's why those who strongly object to heroic medical measures increasingly are stating their wishes in writing while they're still able to make such decisions.

One kind of legal document for doing this is known as a living will. The other is the health care power of attorney.

Forty-one states and the District of Columbia have enacted statutes that recognize a living will, which is a written statement of wishes regarding life-support systems. A medical power of attorney, authorized in 29 states and the district, allows you to designate someone to make medical decisions if you become incapacitated. You can include specific treatment instructions to that person. In some states, living-will statutes allow you to appoint a health care proxy to carry out your instructions.

STRICT LIMITS. Living-will statutes—also known as natural-death laws—vary, so it's a good idea to sign a directive that complies with the law in your state. You don't need a lawyer for this. You can get the right document by writing to the Society for the Right to Die (250 W. 57 St., New York, N. Y. 10107).

Be aware that most states limit the conditions under which individuals can suspend life-support treatment. Many insist, for instance, that it can be withheld only when a patient is terminally ill or when death is "imminent." The language on the standard forms often is vague and could be interpreted to exclude individuals who could live for years in a vegetative state on a life-support system. Some states also exclude artificial feeding from their definition of life-support systems. That means tube feeding cannot be cut off. Power-of-attorney laws tend to be more flexible than living-will statutes. The Society for the Right to Die can advise you on whether to draw up a living will, power of attorney, or both.

Despite restrictions in some states, it's a good idea to write your additional wishes into your living will. Courts in many states recognize a constitutional right to reject nutrition even when a statute does not. In addition, since most decisions to withdraw life support never reach the court, your instructions will be a welcome guideline for your family and physician.

Even with the state limitations, a recent U. S. Supreme Court decision may give greater weight to any instructions you leave. On June 25, the court ruled that the parents of Nancy Cruzan, a young Missouri woman wh has been in a persistent veg tative state since a car ac dent seven years ago, cou not turn off her life-suppo system because there was n "clear and convincing" pro she would have wanted th done. The justices did sugge they would uphold the righ of individuals who declare writing their objections to h roic medical measures. "N matter what the state's la the Supreme Court implie that your instructions or yo agent's directions would ha to be followed," says Ro Gasner, director of legal se vices at the Society for th Right to Die.

STATE BOUNDARIES. The ad tions you make to the sta living-will forms and the i structions you leave to yo agent will depend on yo personal beliefs, of course. A the minimum, you may wa to note that you do not wa treatment in the event of irr versible unconsciousness. A you may want to define lif sustaining treatment to i clude nutrition. Another co sideration is suspending tu feeding in advanced stages Alzheimer's disease, whe swallowing is impossible.

What if you live in one the nine states without livin will statutes? You can sign general living-will forn which probably will be reco nized in the wake of the Cr zan decision. If you move spend a significant amount time in another state, it's be to execute a new docume for that state.

Those who prefer to dra up a health care power of a torney have an alternativ route if they don't live in o of the 29 states that recogni

All states have "dura-
wer of attorney" stat-
which allow an agent to
business and property
ctions if a person be-
incapacitated. Chances
at a person can use a
l durable power of at-
to cover themselves
nedical events, says
s P. Sabatino, assistant
r of the American Bar
s Commission on Legal
ms of the Elderly.

ALMS. Many physicians have views different yours, so discuss your with your doctors before signing a living will or a power of attorney. Talk with your family, too: You want to make sure the person you choose as your agent has no qualms about carrying out your wishes.

Contact a lawyer specializing in estates or elder law for advice on assigning powers of attorney. If you are filling out forms on your own, be sure to follow all notary or witnessing instructions. Also make sure you give copies to everyone who would need them.

Health Care Powers of Attorney, an ABA/American Association of Retired Persons booklet, is a good information source. Write AARP Fulfillment, Stock No. D13895, 1909 K St. N. W., Washington, D. C. 20049. Help also may be available from local agencies on aging. *Susan Garland*

VARIATIONS IN NATURAL DEATH LAWS

- States without living-will statutes where the courts have recognized the right to have treatment withheld or withdrawn: Mass., Mich., N.J., N.Y., Ohio, Pa., R.I.
- States with durable power-of-attorney laws that permit agents to make decisions to withdraw or withhold medical treatment: Calif., Ga., Ill., Kan., Ky., Me., Miss., Nev., Ohio, R.I., S.C., S.D., Tenn., Tex., Vt., W. Va., Wis. (Also D.C.)
- States where living-will statutes permit the withholding of tube feeding: Ala., Ark., Colo., Idaho, Ill., Me., Minn., Mont., N.D., Ore., Tenn.
- States that specifically prohibit the withdrawing of tube feeding: Conn., Ga., Ky., Mo., Wis.

Leisure

W NOT TO GO ING FOR A FALL

in't a horse that can't be rode, ain't a man that can't be d." Doubt the wisdom old saw? Then ask the of Wales or designer Klein. In the past few , both were injured in a e-time pursuit that s 45,000 injuries a year. one casualty for every ours of riding—a rate makes horseback riding perilous than motorcycle or auto racing.

you can enjoy the of riding and keep the to a minimum, if you ome elementary precau- A recent study by the rs for Disease Control anta sheds new light on eople get hurt while riding—and points up the need for basic safety measures that many riders ignore. Some tips:

■ **Always wear a helmet.** Six out of 10 riding fatalities involve head injuries. No wonder: 80% of riders who are hurt in a fall aren't wearing a helmet. Calvin Klein was helmetless when he fell and cut his head. Wearing a helmet is "the one thing you absolutely must do to ride safely," says Dr. David Nelson, a CDC epidemiologist. I can attest to that. I've fallen eight times and never been hurt—even when I took leave of a galloping horse in Ireland and banged my helmeted head on the ground. Even if you don't fall, with your noggin nine feet off the ground it's easy to hit tree limbs and bridges.

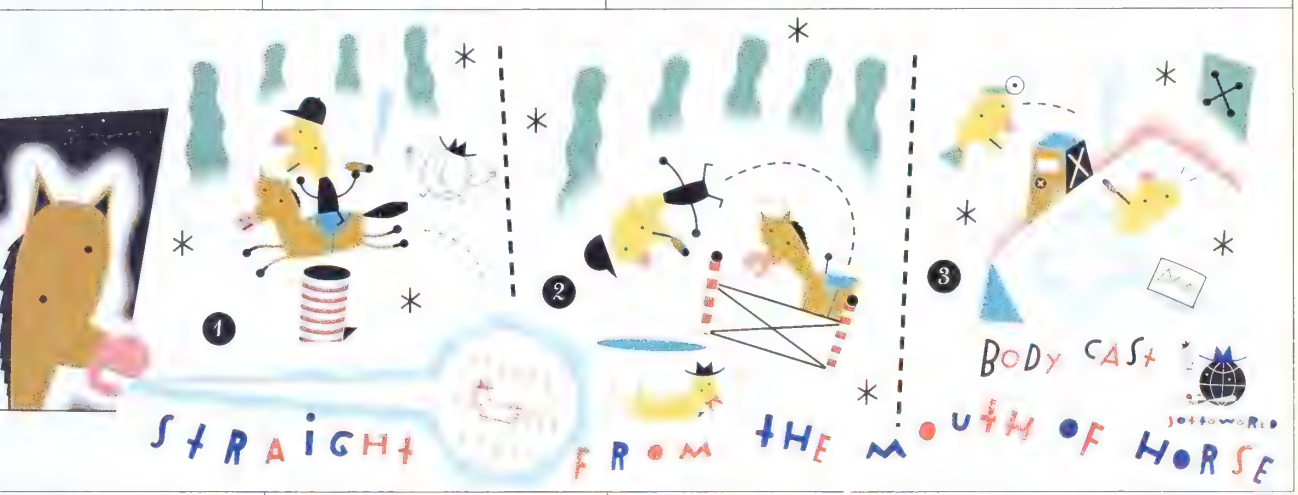
So never ride without wearing a snug-fitting, hard-shell helmet. Be sure to get one that meets the standards set for riding-hat safety by the American Society for Testing & Materials. A tag should say the helmet "meets or exceeds ASTM Standard F-1163-88." Make sure it's always securely buckled, lest it pop off your head at a bad moment.

■ **Examine your tack.** Before you mount, check the reins, bridle, and stirrup leathers, and tighten the girth—the strap that holds the saddle to the horse. Check the girth again after you've ridden a while. If it's loose, the saddle may slide off and take you with it. (Don't make it too tight, or you'll hurt the horse.) Be sure the stirrups aren't so small that they snare your feet.

■ **Check the stirrup release.** Most beginners don't know about the lever found to the rear of the metal ring where the stirrup is hung on English saddles. If your foot is lodged in the stirrup and you fall off the horse, you'll be dragged unless this lever opens up. Sometimes they get stiff from lack of use, and stable owners have been known to wire them closed. Be sure they move easily—or, better still, keep them open. The stirrups won't come off.

■ **Wear proper footwear.** Hard-soled shoes are a must, and they should have a prominent heel so your foot won't slide through the stirrup. Western boots with high heels are well suited to riding.

■ **Know your limitations.** Trail rides at resorts and national parks are usually slow and safe. But if a ride involves fast gaits, join in only if you've been taught by an instructor. Watching John Wayne on the Late Show doesn't count. *Gary Weiss*



Autos

A BRAWNY PORSCHE WITH A BRAINY TRANSMISSION

Porsche's Carrera 4 made its debut last year to a cascade of compliments. All-wheel-drive and a new suspension had brought uncanny cornering stability to a historically skittish speedster.

Now comes the Carrera 2, a conventional, rear-drive version. In hard cornering, it's less predictable than the $69,500 Carrera 4, especially on slick or uneven pavement. But unlike its cousin, the Carrera 2 is available with an innovative, "intelligent" four-speed automatic transmission.

The Tiptronic, as it's called, strikes a neat compromise between a manual gearshift and an automatic one. You can use it as a stick shift, minus the clutch, or put it in drive as a conventional automatic.

When in the automatic mode, the transmission's computer picks one of five shift patterns, depending on how spiritedly you drive. You can plod along mindlessly in rush-hour traffic with the engine barely ticking over. Or you can go screaming along curvy roads with full use of the Carrera 2's 247 horses.

SPIN CONTROL. The quicker you stomp the gas, the faster the engine turns before shifting and the more power goes to the rear wheels. More important, the transmission's computer can help keep you out of trouble. For instance, if you back off the accelerator in a tight turn, the transmission holds its gear rather than upshifting, which might cause the rear end to lose traction and the car to spin out. If you enter a turn going too fa and the rear wheels begin slip, the transmission w choose the next lower gear, help stabilize the car.

To switch to manual tran mission, flick the shift lev to the right of drive—a re pointer on the dash indicat which gear you're in. To u shift, merely tip the lev briefly toward the front; downshift, toward the rea The system takes a little ge ting used to, but the shif are smooth and quick. On again, the computer bra helps out. If you stop witho downshifting, the transmi sion shifts down automatica ly to keep the engine fro stalling. And if you forget shift up while acceleratin the computer does it befo the engine blows up.

The Carrera 2 Coupe wi Tiptronic costs $61,280, $2,7 more than one with a fiv speed manual. But if yo want an automatic for th city and a manual for th open road, the Tiptronic mig be worth it. *David Woodru*

Smart Money

GOT TUITION WOES? MAYBE THE ARMY CAN HELP

Wondering where you'll find that $50,000 to send your kid to college? One answer may be at a U. S. Armed Forces Recruiting Station. In the past few years, the all-volunteer military has beefed up education aid to soldiers as a selling point. "We need the incentives to attract quality people," says Connie Hill, an official with the U. S. Army Recruiting Command.

Young recruits can get as much as $25,200 for an undergraduate education. The hitch, of course, is that they have to serve a hitch. Just how long hinges on whether they sign up for active duty, meaning they're full-time military personnel, or for the reserve, donning a uniform one weekend a month and for two weeks in the summer. Active-duty enlistments generally are for four years; reserve ones, for six.

Beyond that, there's an initial time commitment that everyone, both full-timers and reservists, has to make. All must go away to basic training, which can last as long as six months, depending on service branch and job specialty.

The military has a plethora of education-aid programs to recruit and retain people.

> The G.I. Bill is less generous these days, but still a good deal

With small variations, they are the same for the Army, Navy, Air Force, and Marines. Women, now making up 10% of the armed forces, are banned from combat jobs, but have the same chance as men to get education aid. Contact recruiters, who can be found in the Yellow Pages, for information about the opportunities.

FAT POTS. The centerpiece of military education aid is the Montgomery G. I. Bill. Resurrected in 1985 after a decade's absence, this is a slightly less generous version than of old, but it's still a pretty good deal. To qualify, a military person must be a high school graduate or get an equivalency diploma. Active-duty people must contribute $1,200 to the G. I. Bill fund, and the government throws in $10,800. Reservists get $5,040, but do not donate their own money to the program's fund.

On top of that, there's another pot of money, with slightly stiffer standards for hopefuls. Active-duty person nel who score well on thei military preinduction intelli gence exams (a minimum 5 for the Army, 65 for th Navy) can draw as much a $14,400 extra from this fund

All reservists and active duty personnel not using th G. I. Bill can be reimburse for up to 75% of each cours they take, up to six hour per semester. Recipient must be high school grads Plus, the military will repa 15% of a college loan or $500 whichever is greater, for ev ery year served.

Then there are Reserv Officers Training Corp scholarships, which pay th higher of $7,000 or 80% o tuition yearly plus a $100 per-month stipend. Futur officers need combined SA scores of 850 to qualify.

No one knows whether de fense budget cuts will curtai these benefits. Meanwhile, i your offspring want to serv their country, they can serv their parents' interests a well. *Larry Ligh*

Dining

UTE CUISINE AND A DSON VIEW

uring the summer, as the sun bakes the concrete jungle, it's easy get that Manhattan is and. Happily, several ront restaurants have d recently to remind These elegant eateries splendid views. And the at about $100 per cou- n't bad, either.

ne World Financial Cen- the island's southern the Hudson River Club 86-1500). Paneled glass g doors separate the into four rooms, deco- with light wood, green idered banquettes, and d lampshades. The view in a yacht marina and a Statue of Liberty.

hushed atmosphere sts "men's club." Alas, on't always feel like a er. Even though better were half empty, we tuck in a side room, the water view was ly blocked.

EFFECT. Dinner be- with complimentary d'oeuvres, including ture onion-walnut ns. Like most items ne menu, they're with ingredients in- ous to New York which get shaped ch dishes, including chin custard in cavi- uce and buffalo steak potato chips stuck in ed potatoes, like an In- eaddress.

his kitchen, presentation d is almost as important w it tastes. A cham- mint sorbet comes with a halo of cookies. ne Tower of Chocolate, thin strips of chocolate a stack of cake, se, and meringue.

flight up, Le Pactole 45-9444) is Hudson River culinary opposite. Cele- g traditional French cuisine, the menu has 100 dishes, including seven soups, five types of poultry, and three ways of preparing oysters. This is not the place to watch fat or salt. "We're a restaurant, not a hospital," says co-owner Romeo De Gobbi.

Actually, fish and grilled meats are available. But Le Pactole's strength lies in the classics, especially if cream is involved: veal with mushrooms, warm oysters with leeks, or ginger *crème brûlée.*

The layout parallels the Hudson River Club's, but the rosy decor exudes warmth instead of corporate chic. There are high-backed wooden chairs and puffy Austrian shades. The windows face the New Jersey shore.

FERRY LAND. With Arthur's Landing in Weehawken, N. J. (201 867-0777), getting there is half the fun. Every 15 minutes, a Port Imperial ferry leaves 38th Street and 12th Avenue and zips across the Hudson to dock four minutes later. The restaurant is hard to miss: "Arthur's Landing" is written in neon script on the glass exterior. "Arthur" is owner Arthur Imperatore, CEO of APA Transport.

The interior incorporates some touches from the building's former life as a warehouse: exposed rivets and cobalt glass lamps dangling from ceiling cables. The modernistic, taupe-and-violet decor is pleasant. But the view's the thing: Midtown Manhattan rises before you, seemingly close enough to touch.

Entrées consist mostly of grills and roasts—simple, but with pleasant surprises, such as fresh oranges with the duck or mustard crust on rack of lamb. With dessert, the chef gets intense: fresh fruit tart in cream or hot bread pudding with caramel sauce.

At the evening's end, Manhattan patrons get a $4 refund for their boat ride over and free passes for the trip back. You see, Arthur owns the ferry, too.

For the ultimate river view, World Yacht Cruises (212 929-7090) runs dinner-dance cruises every night. About a year ago, World Yacht hired a French chef to spruce up the limited menu. The food is now quite decent, if you stick to basics: filet mignon and chocolate mud pie.

Between courses, most diners brave the breezy deck to see New York in lights. The boat sails around the island's tip, up the East River, and back out toward the Statue of Liberty. The climax is on the way home: Look back, and there stands the Lady, torch gleaming; look ahead, and the city glitters. As one recent passenger sighed: "That's what makes New York great." *Troy Segal*

WORLD YACHT CRUISES: DINING, DANCING, AND CITY LIGHTS

ARTHUR'S LANDING: SKYSCAPE AT SUNSET

Worth Noting

■ **TAX TIPS.** Coopers & Lybrand has updated its two-year-old *Guide to Financial Instruments.* The free book defines such innovative vehicles as deferred-interest debt and discusses the new tax status of ESOPs and equity swaps. Write C&L, Publications Dept., 2nd floor, 1251 Avenue of the Americas, New York, N. Y. 10020.

■ **CARD SHARP.** Sharp Electronics is offering new game cards to use in its Wizard Electronic Organizer ($300). A chess card and one programmed with the popular Tetris computer game will be out in late summer ($50).

AVOID BUILDING MISTAKES

Plan your next business facility with confidence.

VP Buildings offers this valuable guide to construction, including a special planning worksheet, free to building decision makers. To maximize your project's potential and to avoid costly mistakes in facility planning and construction, write or call for yours today!
1-800-238-3246.

VARCO-PRUDEN BUILDINGS
AMCA INTERNATIONAL

Built On Superior Service

FREE! "Building Methods Compared"
including the planning worksheet
Mail to Varco-Pruden Response Center
P.O. Box 3900
Peoria, IL 61614

COMPANY _____

YOUR NAME _____

TITLE _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

PHONE (_____

Index to Companies

This index gives the starting page for a story or feature with a significant reference to a company. Most subsidiaries are indexed under their own names. Companies listed only in tables are not included.

A

Accolade 74
Accor 34, 56
Adidas 48
Allied Signal Aerospace 70
American Airlines 22, 28
American Medical International 42
American Motors 34
Amoco 19
Arnault & Associes 48
Associated Ice Cream 28
AT&T 24
Atari 74

B

Beatrice 56
Biogen 68
BMW 32
Boeing 77
Boussac 48
Brambles Industries 70
British Telecommunications 36
BTR 34

C

Canal-Plus 42
Cetus 68
Champion International 64
Chevron 28
Christian Dior 48, 51
Christian Lacroix 48
Circle K 56
Citibank 40
Coastal 6
Compagnie Generale des Eaux 42
Compaq 70
Computer Associates 24
ConAgra 56
Contel 21
Continental Airlines Holding 22
Coopers & Lybrand 81
Cummins Engine 20
Celine 48

D

Daimler Benz 40
Delta 28

E

Eastern Air Lines 22
Edgcomb 34
Edsun Laboratories 70
EGS Partners 66
Electronic Arts 74
Eli Lilly 68
Equimark 62

F

First Brands 56
First Interstate Bancorp 56, 61
Ford 20, 32
Freightliner 40
Fujisawa Pharmaceutical 66
Fujitsu 36

G

Gateway 56
Genentech 66, 68
General Dynamics 23
General Electric 32
Georgia-Pacific 64
Givenchy 48
GKN 70
GM 32
Goldman, Sachs 21
Grand Metropolitan 48, 51
Great American Bank 28
GTE 21, 32
Guinness 48, 51

H

Hachette 34
Hayashibara Biochemical Laboratories 68
Hillsborough Holdings 56
Hungarian Credit Bank 32

I

IBM 28, 72
Interco 56
International Paper 64
ITT 36

J

Jacques Rober 51

K

K-III Holdings 56
Kimberly-Clark 64
Kohlberg Kravis Roberts 56, 60, 61
Kubota 20

L

LBO France 48
Litton 40
Loews 64
L'Oreal 51
Louisiana-Pacific 64
Lubrizol 66
LVMH Moet Hennessy Louis Vuitton 48, 51

M

Mack Trucks 34, 40
Macmillan Publishing 56
McCaw Cellular Communications 21
McDonnell Douglas 23
McGraw-Hill 56
MCI 24
MCorp 56
Medco Research 66
Mediagenic 74
Mellon Bank 62
Mercedes-Benz 32
Michelin 34
MIPS Computer Systems 20
Mitsui 72
Monoclonal Antibodies 28
Monolithic Systems 70
Mosinee Paper 64
Motel 6 34, 56

N

National Bancshares 62
Navistar 40
NCNB 62
NEC Technologies 74
Nintendo 74
Nishimatsu Construction 70
Nixdorf 36
Norsk Data 36
Northern Telecom 6, 36
Northwest 22
Norton 34

O

Ogilvy & Mather 24
Oppenheimer 66
Orcofi 51

P

Paccar 40
PaineWebber 21
Paramount 66
Pennzoil 28
Perrier Group 6
Philip Morris 60
Philips 32, 36
PNC Financial 62
Procter & Gamble 70
Puget Sound Power & Light 77

Q

Quidel 28

R

Renault 34, 40
Rhône-Poulenc 34, 66
Rite Aid 28
RJR Nabisco 56, 60
Rorer Group 34

S

Safeway Stores 56
Saint-Gobain 34, 42
Saks 56
Salomon Brothers 21
Scott Paper 64
Seaman Furniture 56
Security Pacific 61
Sega Enterprises 74
Seiko Epson 70
Sharp Electronics 81
Siemens 32
Sierra On-Line 74
Software Toolworks 74
Southland 56
Stardent Computer 20
STC 36

T

Tarmac Virginia Holdings
Temple-Inland 64
Tenneco 20
Texaco 56
Thorn EMI 32
TJ International 64
Tungsram 32
Turner Broadcasting 77

U

Union Texas Petroleum 5
Uniroyal Goodrich Tire 3
Unisys 72
United Technologies 70
Usinor Sacilor 34
US Sprint 24
U.S. West 77

V

Volvo 40

W

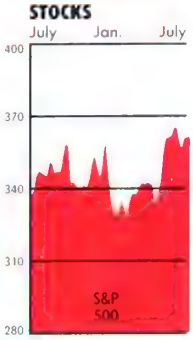
Wausau Paper Mills 64
Wells Fargo 28, 61
Weyerhaeuser 6, 64, 77
Willamette 64

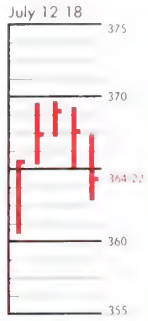
vestment Figures of the Week

NTARY

eased investors. On July Federal Reserve moved to terest rates, and the Dow dustrials pushed past ring the day for the first t it failed to close above eshold. The market was on July 16, when IBM re- a better-than-expected econd-quarter gain. Again, couldn't hold 3000. rm rates are down. How- e 0.5% rise in the June ounced on July 18, sent mbling.

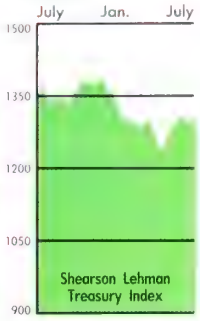
STOCKS





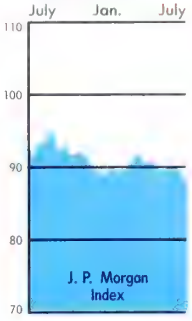
52-week change **+8.5%** 1-week change **-0.8%**

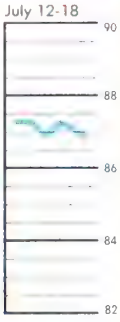
BONDS



52-week change **-4.3%** 1-week change **-0.3%**

THE DOLLAR





52-week change **-6.2%** 1-week change **-0.6%**

RKET ANALYSIS

TOCKS	Latest	% change Week	52-week
ONES INDUSTRIALS	2961.7	1.0	14.6
MPANIES (Russell 1000)	189.1	0.7	6.6
COMPANIES (Russell 2000)	167.9	–0.5	–3.6
MPANIES (Russell 3000)	201.2	0.6	5.9

N STOCKS	Latest	% change (local currency) Week	52-week
I (FINANCIAL TIMES 100)	2402.0	1.8	4.8
(NIKKEI INDEX)	33,048.1	2.3	–1.5
O (TSE COMPOSITE)	3580.8	1.0	–7.5

FUNDAMENTALS	Latest	Week ago	Year ago
90-DAY TREASURY BILL YIELD	7.8%	8.1%	8.2%
30-YEAR TREASURY BOND YIELD	8.6%	8.6%	8.1%
S&P 500 DIVIDEND YIELD	3.2%	3.3%	3.3%
S&P 500 PRICE/EARNINGS RATIO	16.7	16.5	13.1

TECHNICAL INDICATORS	Latest	Week ago	Reading
S&P 500 26-week moving average	344.6	343.6	Positive
Stocks above 26-week moving average	50.1%	45.1%	Neutral
Speculative sentiment: Put/call ratio	0.30	0.31	Neutral
Insider sentiment: Vickers sell/buy ratio	1.21	1.06	Positive

USTRY GROUPS

BRIDGE INFORMATION SYSTEMS INC.

WEEK LEADERS	% change 4-week	52-week	Strongest stock in group	% change 4-week	52-week	Price
H CARE SERVICES	20.8	42.2	BEVERLY ENTERPRISES	28.9	–30.0	6⅛
CCO	16.2	31.1	PHILIP MORRIS	18.1	39.3	50½
MINING	14.4	17.8	PLACER DOME	19.5	12.5	16⅞
LS	14.0	9.1	PHELPS DODGE	17.6	28.2	67⅝
TION CONTROL	11.8	51.3	BROWNING-FERRIS	13.8	32.4	47½

WEEK LAGGARDS	% change 4-week	52-week	Weakest stock in group	% change 4-week	52-week	Price
-DISTANCE TELECOMMUNICATIONS	–13.0	–0.9	UNITED TELECOMMUNICATIONS	–25.6	–14.5	29½
INE TOOLS	–10.8	–18.7	CINCINNATI MILACRON	–12.9	–17.7	16⅞
UTER SOFTWARE AND SERVICES	–10.3	7.0	COMPUTER ASSOCIATES INTL.	–39.2	–45.7	9½
MARKET AUTO PARTS	–7.5	–22.6	GOODYEAR TIRE & RUBBER	–11.4	–44.5	30⅛
UFACTURED HOUSING	–7.5	–8.0	FLEETWOOD ENTERPRISES	–10.9	–7.3	25½

TUAL FUNDS

MORNINGSTAR INC

RS

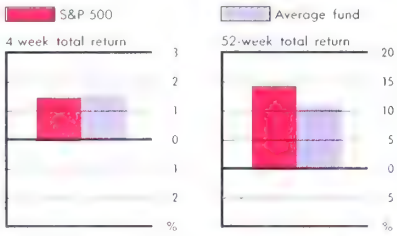
k total return	%
TEGIC INVESTMENTS	13.9
IAM GOLD EQUITIES INDEX	12.7
IMORE PRECIOUS METALS INDEX PLUS	11.3

k total return	%
TY STRATEGIES	59.2
ITY SELECT BIOTECHNOLOGY	56.5
NCIAL STRATEGIC HEALTH SCIENCES	52.6

LAGGARDS

Four-week total return	%
FIDELITY SELECT SAVINGS & LOAN	–5.1
SHERMAN DEAN	–4.4
FIDELITY SELECT REGIONAL BANKS	–4.4

52-week total return	%
NATIONAL REAL ESTATE INCOME	–18.8
FIDELITY SELECT BROADCAST & MEDIA	–15.8
ROCHESTER GROWTH	–15.1



ATIVE PORTFOLIOS

DATA RESOURCES INC.

amounts
nt the present
f $10,000
d one year
each portfolio

ages indicate
total returns

U. S. stocks	Money market fund	Treasury bonds	Foreign stocks	Gold
$11,035	$10,713	$10,399	$10,269	$9,728
+3.09%	+0.15%	+1.20%	+2.60%	+1.89%

on this page are as of market close Wednesday, July 18, 1990, unless otherwise indicated groups include S&P 500 companies only, performance and share prices are as of market close July 17. Mutual fund returns are as of July 13. Relative portfolios are valued as of July 17. A more detailed explanation of this page is available on request.

THE FED IS RIGHT: EASING DOES IT

It's a good start, Chairman Greenspan, but don't stop now. The Federal Reserve Board's quarter-point cut in the federal funds rate, to 8%, on July 13, was the first easing of monetary policy since December. The move was billed as a technical adjustment to offset tighter institutional control over bank lending by federal regulators that could spark a credit crunch. But the threat right now is recession. That calls for further easing—and soon.

Because of the lag before the Fed's actions affect the economy, using monetary policy to fine-tune the ups and downs of economic activity has almost always ended in a recession. Past Feds have waited too late to ease in the face of a weakening economy, and that must not happen now.

To be sure, the Greenspan Fed has raised fine-tuning to an art, sifting through tons of economic data for clues on appropriate policy. But now, the Fed needs to place less weight on indicators of the economy's current performance and more emphasis on what common sense says about the future. Not only is the economy weak but its prognosis is the poorest in the 7½ years since the last recession. A mere quarter-point cut in the funds rate won't change that.

The expansion is simply pooping out. The growth of final demand—spending by consumers, businesses, government, and foreigners—has slowed during the past year to the weakest annual pace of the expansion. Growth in the second quarter was virtually nil, and the outlook for each sector, particularly consumer purchases, is deteriorating. Annual job growth in the private sector has slid to an expansion low, eroding consumers' income growth and confidence. Falling profits weaken the outlook for capital spending. Cuts in government spending will be a further drain, and higher federal and state taxes will sap consumer buying even more. Exports remain fairly strong, but they are only 14% of overall demand, and they are slowing down.

The economic cost of too much easing would be inflation. But the cost of a recession would be staggering—more failed thrifts, more pressure on already fragile banks, a tidal wave of red ink from the federal deficit, and a knockout blow for many consumers and businesses that are leveraged to the hilt. Don't repeat past mistakes, Mr. Chairman. Make sure the Fed doesn't ease too little, too late.

CAMPAIGN REFORM IS UP TO THE VOTERS

This was the year campaign-finance reform was finally going to happen. The President and congressional and party leaders all said they wanted it. And the public, sickened as S&L robber barons flooded congressional campaigns with money, thought reform was long past due.

Nevertheless, it now appears that Congress will wrap up its 1990 session without passing serious reform. And it's not hard to figure out why. Incumbents don't have any partic lar reason to be unhappy with a system that generall favors their re-election. A big war chest, raised early, ca scare potential opposition out of the race. Of all who ar party to the debate, only House Republicans—a seeming permanent minority—have real reason to want change, an they lack the clout to make anything happen.

Congress will clean up campaign financing only whe members see less risk in acting than in standing pat. Tha means Americans must use their votes to back change.

Even then, both parties must commit themselves to legi lation that will reform a corrupt system rather than simpl rearrange the rules for new partisan advantages. One ke step: Limit the amount of total funding that any sing candidate may receive from political action committees t $100,000 for House candidates and, for Senate hopefuls, sliding scale based on population.

Overall limits on campaign spending would help end th escalation of election costs. Since campaign spending ha been ruled a form of free speech, restrictions would have t be voluntary. A requirement to abide by the ceilings t qualify for federal funding of campaigns would do the tric

The American people deserve the best government o earth, not the best that PAC money can buy.

THE REAL CULPRITS IN THE BANKING MESS

The place for crooks is jail. The Administration an Congress are right to be throwing the book at th flimflam operators who thrived in the savings-and-loa industry before it went belly-up. But the law enforceme mop-up won't obscure the fact that the real culprits in th thrift debacle were Congress and the White House. Th Reagan Administration and Congress managed to dereg late the thrift industry in the early 1980s in a way guara teed to cost the taxpayers billions while keeping the coffe of the politicians full of S&L industry lobbyists' contribution

Now, eight years later, neither Congress nor the Admini tration has made the tough political decisions necessary prevent a similar crisis in commercial banking or in th thrift industry again. They must reform the deposit insu ance system, placing less generous limits on governme guarantees of individuals' deposits. We recommend a cap $100,000 per household, instead of per account. Greenspa was correct in his recent testimony to Congress that ban must sharply increase their capital ratios so that more p vate capital and less taxpayer money is at risk in the ban ing business. With taxpayer money at risk, economic ef ciency and sound government argue for Congress and th Administration to impose a regulatory structure on th banking industry that takes into account today's global eco omy instead of the regulatory fallout of the 1930s. At th very least, that would mean letting banks battle for custo ers nationwide rather than the current balkanized syste that limits national competition. Less generous deposit insu ance, better capital bases, and more competition could e sure a sounder, safer banking system.

August 6

APPROACH TO TAXES PAGE 60

3 9042 02350102 3

GLUT PAGE 56

BusinessWeek

AUGUST 6, 1990 A McGRAW-HILL PUBLICATION $2.00

BURLINGAME
JUL 27 1990
LIBRARY

THE BEST COMPANIES FOR WOMEN

How to Make Your Company Woman-Friendly

PAGE 48

At Pitney Bowes, CEO George Harvey's top team includes many women

BURLINGAME PUBLIC LIBRARY
480 PRIMROSE RD
BURLINGAME CA 94010

0602 10581116O SEP91 T3G

xxxxxxxxxxCAR-RT-SORT**CR30

Life can throw you a curve or two.

As well as the occasional up and down. All of which can be thoroughly enjoyed in the Infiniti M30 *luxury sports coupe.*

©1990 Infiniti Division of Nissan Motor Corporation in U.S.A.

With a 3.0 liter, V6 engine, variable-assist power rack-and-pinion steering, and electronically-controlled sonar suspension, you're ready to handle just about anything the road throws your way.

And all the while, your experience is further enhanced by things like automatic temperature control and a world-class Bose® Audio System (just to mention some more standard features of this innovative sports coupe).

All in all, it probably sounds like a lot of fun. And that's because, in all honesty, it is.

To find out more about or test drive the Infiniti M30 luxury sports coupe, call 1-800-826-6500 for your nearest Infiniti dealer.

eated by Nissan

I N F I N I T I.

Science Teacher Fred Holtzclaw Has Successfully Created Energy In A Classroom.

In the nearly 20 years that Mr. Holtzclaw has been teaching high school science in Tennessee, he's learned a lot about energy. How to impart enthusiasm, for instance. The hard work needed to overcome inertia. And most difficult of all, what to do about burn-out.

He's not alone. Every day, teachers all over the country face the same challenges.

That's why Martin Marietta is helping to underwrite a new regional Academy for Teachers of Science and Math at the University of Tennessee. It's an intensive program of study and discussion for Martin Marietta Fellows; outstanding educators in all grade levels. Through the Academy, the private sector, government and academia are all joining together to support a critical educational initiative by President Bush.

It's important to help keep things moving in the classroom, and teachers like Fred Holtzclaw are the right place to start. If we want to fire-up the masterminds of tomorrow, the best thing we can do is keep our outstanding teachers energized today.

MARTIN MARIETTA

6801 ROCKLEDGE DRIVE, BETHESDA, MARYLAND 20817

MASTERMINDING TOMORROW'S TECHNOLOGIES

© 1990 Martin Marietta Corporation

NUMBER 3172

BusinessWeek

AUGUST 6,199

DUE CREDIT: AMERICAN EXPRESS' AGGRESSIVE RECRUITING PROGRAM HELPED WOMEN SUCH AS ANNE BUSQUET REACH THE EXECUTIVE SUITE

Cover Story

48 WOMAN-FRIENDLY COMPANIES
Enlightened CEOs are finding that it makes bottom-line sense to promote talented women to management ranks. But it takes more than benefits such as flextime and maternity leave to retain these executives. The trick is creating a gender-blind corporate culture where women have an equal shot at landing top jobs. Here's how some leading companies are making it happen

54 BUSINESS WEEK/HARRIS POLL
The view from the trenches: A survey of 450 women executives

55 ANGER, SHOUTING, AND TEARS
At Ethicon, role-playing workshops explore racial and gender bias

ON THE COVER: (standing) Pitney Bowes Chairman Harvey, Vice-President Mary Herbert, Logistics Systems President Carole St. Mark; (seated) board members Eleanor Holmes Norton and Phyllis Sewell, Vice-President Kathy Synnott, board member Julia Walsh, and Vice-President Anne Pol

Top of the News

26 'EUROPE AIN'T NO BONANZA'
Competition is getting rougher for U. S. computer companies

27 HOT SOFTWARE
It's spurring U. S. sales hopes

28 COMMENTARY
Strengthen the chip pact with Japan

29 THE GRANITE STATE ENIGMA
David Souter is a tough target

30 NOT SO JUICY AT McDONALD'S
A slump in sales and earnings gains

31 NAIL-BITING AT PRIMERICA
A. L. Williams' woes could hurt it

32 PLAYING CHICKEN WITH UPS
The Teamsters drive a hard bargain

33 GRUMMAN FLIES INTO THE WIND
O'Brien is out, and sales are tougher

36 HIGH TECH ON A SHOESTRING?
A new U. S. agency tries to spur R&D

38 IN BUSINESS THIS WEEK
Du Pont and Merck, NASA, Schwab, Loral's big bet, garlic, National Intergroup, jettisoning junk

International

42 EASTERN EUROPE
Slow-moving agencies and a lack of property laws will plague the sell-off of state-owned enterprises

44 CUBA
Economic conditions are worsening as key allies plan to cut aid

45 INTERNATIONAL OUTLOOK
Is Iraq really ready to start a new gulf war?

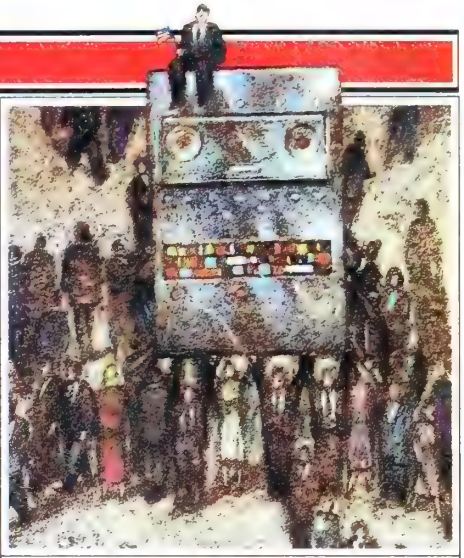
Economic Analysis

18 ECONOMIC VIEWPOINT
Becker: Term limits for Congress

22 ECONOMIC TRENDS
Consumer spending, foreign debt, profits abroad, companies in hock

23 BUSINESS OUTLOOK
Growth has gone off on an extended vacation

60 ENDING FEDERAL RED INK
A detailed plan for slashing spending and increasing revenues



HOW TO CUT THE DEFICIT: BUSINESS WEEK'S PLAN TO REDUCE THE FEDERAL DEFICIT BY $650 BILLION OVER THE NEXT FIVE YEARS—AND MAYBE PRODUCE A SURPLUS IN 1996

62 DOING LOTS OF THINGS RIGHT: ACTOR/WRITER/DIRECTOR SPIKE LEE MAKES MOVIES, TV COMMERCIALS, MARKETING CAMPAIGNS, AND LOTS OF MONEY

26 THE NOT-SO-GRAND TOUR: EUROPE'S COMPUTER SLUMP IS STARTING TO HIT U.S. SUPPLIERS. CAN THEY STILL COUNT ON THE CONTINENT TO SAVE THEM FROM THE DOLDRUMS?

Government

WASHINGTON OUTLOOK
How the AFL-CIO's abortion debate symbolizes the power shift within the labor movement

Legal Affairs

IT'S *DOG v. DOG* OUT THERE
The more fiercely the big law firms compete, the more their corporate clients can call the shots

LAWYER, SELL THYSELF!
Law firms are hiring professionals to teach them basic marketing skills

Marketing

***AUTEUR* IN SNEAKERS**
Filmmaker Spike Lee knows how to sell shoes, Levi's, merchandise tied to his movies—and himself

Finance

PROFIT PAIN FOR INVESTORS
Nasty earnings surprises have them flinching—and the second half promises no relief

THE LYON ROARS
Zero-coupon bonds that can be switched into equity are hot

STOTLER STRUGGLES
The hard times at the first big publicly owned commodities trader

RANIERI'S ROUGH RIDE IN TEXAS
His S&L is growing, but big returns are elusive

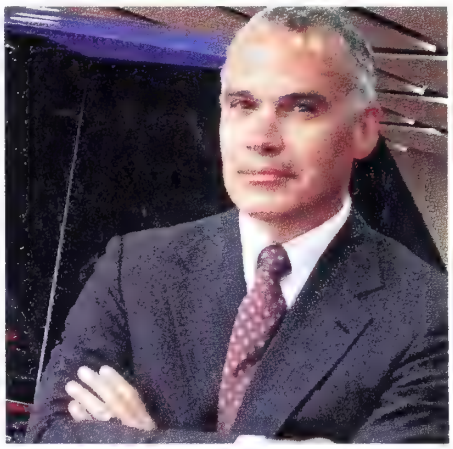
70 INSIDE WALL STREET
Icy picks as the market sweats
The nugget inside Pennzoil
A clear play in toxic waste

89 INVESTMENT FIGURES OF THE WEEK

Information Processing

71 FEAR OF HACKERS
Computer security is a $3 billion industry—but critics say 'there are some charlatans out there'

72 COMMENTARY
Computer anarchism calls for a tough response



56 LAYING DOWN THE LAW: GM'S HARRY PEARCE IS AMONG THOSE GENERAL COUNSEL GIVING OUTSIDE LAW FIRMS SOMETHING THEY NEVER HAD BEFORE—A COLD, HARD LOOK

Science & Technology

74 CAUGHT IN THE VALDEZ' WAKE
Since the spill, Alyeska has been scrambling to satisfy regulators

75 ALASKA'S BAD HABIT
Is it dangerously dependent on oil?

79 DEVELOPMENTS TO WATCH
Robot switchboard, copiers to foil counterfeiters, DNA fingerprints, heavy plastic, a smart chip for TV

The Corporation

82 A BLOWOUT FOR BRIDGESTONE
Its U. S. losses could clobber profits

Personal Business

84 FINANCES: Picking credit cards
DESIGN: A Chinese art of placement
SMART MONEY: Agristocks heat up

Features

6 BUSINESS WEEK INDEX

7 READERS REPORT

7 CORRECTIONS & CLARIFICATIONS

14 BOOKS
Nau: *The Myth of America's Decline*
Nye Jr.: *Bound to Lead*
Rosecrance: *America's Economic Resurgence*

87 INDEX TO COMPANIES

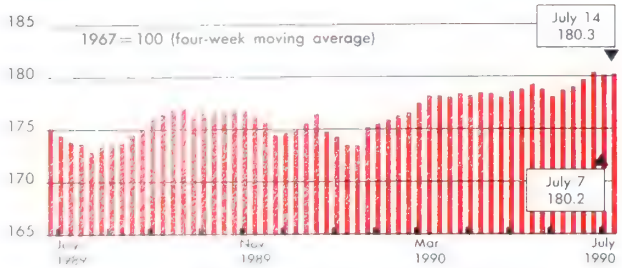
90 EDITORIALS
They haven't come far enough, baby
Advice and consent—without rancor
For lawyers, a little humility

ss Week (ISSN 0007-7135) published weekly, except for one issue in January, by McGraw-Hill Inc. U. S. subscriber rate $39.95 per year. In Canada, one year CDN $54.95. Single $2.00. Executive, Editorial, Circulation, and Advertising Offices. 1221 Avenue of the Americas, New York, N. Y. 10020. Second-class postage paid at New York, N. Y., and at additional mailing Postage paid at Montreal, P. Q. Registration Number 9010. Title Reg. in U. S. Patent Office. **Postmaster:** Send address changes to BUSINESS WEEK, P. O. Box 430, Hightstown, N. J. 08520

BusinessWeek Index

PRODUCTION

Change from last week: 0.1%
Change from last year: 3.7%

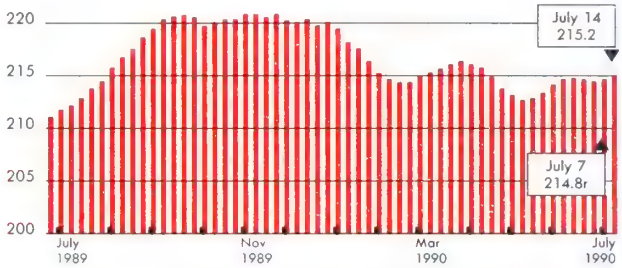


The production index was virtually flat for the week ended July 14. On a seasonally adjusted basis, coal, rail-freight traffic, and lumber production soared, while paper and crude-oil refining output posted smaller gains. That was partially offset by a steep drop in truck production, along with declines in electric power, auto, and paperboard output. Steel production was unchanged for the week. Before calculation of the four-week moving average, the index rose to 181.3 from 179.2.

BW production index copyright 1990 by McGraw-Hill Inc

LEADING

Change from last week: 0.2%
Change from last year: 1.1%



The leading index was up slightly for the week ended July 14. Higher stock prices and faster growth in real estate loans offset the negative effects of higher bond yields and a larger drop in materials prices. The number of business failures and the growth rate in M2 both were unchanged from the previous week. Before calculation of the four-week moving average, the index rose to 216.5 from 215.7 posted for the week before.

Leading index copyright 1990 by Center for International Business Cycle Research

PRODUCTION INDICATORS

	Latest week	Week ago	% Change year ago
STEEL (7/21) thous. of net tons	1,847	1,821 #	–0.2
AUTOS (7/21) units	91,409	73,044r #	10.1
TRUCKS (7/21) units	72,417	40,304r #	1.1
ELECTRIC POWER (7/21) millions of kilowatt-hours	62,558	63,317 #	5.7
CRUDE-OIL REFINING (7/21) thous. of bbl./day	14,304	14,196 #	2.6
COAL (7/14) thous. of net tons	18,750 #	13,887	35.5
PAPERBOARD (7/14) thous. of tons	730.6 #	734.2r	–1.2
PAPER (7/14) thous. of tons	733.0 #	725.0r	9.6
LUMBER (7/14) millions of ft.	442.8 #	289.6	–8.9
RAIL FREIGHT (7/14) billions of ton-miles	19.8 #	16.4	16.5

Sources: American Iron & Steel Inst., *Ward's Automotive Reports*, Edison Electric Inst., American Petroleum Inst., Energy Dept., American Paper Inst., WWPA[1], SFPA[2], Association of American Railroads.

LEADING INDICATORS

	Latest week	Week ago	% Change year ago
STOCK PRICES (7/20) S&P 500	365.52	362.00	9.5
CORPORATE BOND YIELD, Aaa (7/20)	9.24%	9.26%	3.5
INDUSTRIAL MATERIALS PRICES (7/20)	101.4	101.2	–3.3
BUSINESS FAILURES (7/13)	248	249	–4.6
REAL ESTATE LOANS (7/11) billions	$377.5	$377.0r	11.8
MONEY SUPPLY, M2 (7/9) billions	$3,286.8	$3,283.7r	5.4
INITIAL CLAIMS, UNEMPLOYMENT (7/7) thous.	361	350	7.8

Sources: Standard & Poor's, Moody's, *Journal of Commerce* (index: 1980 = 100), Dun & Bradstreet (failures of large companies), Federal Reserve Board, Labor Dept. CIBCR seasonally adjusts data on business failures and real estate loans.

FOREIGN EXCHANGE

	Latest week	Week ago	Year ago
JAPANESE YEN (7/25)	149	147	139
GERMAN MARK (7/25)	1.62	1.64	1.88
BRITISH POUND (7/25)	1.81	1.82	1.66
FRENCH FRANC (7/25)	5.44	5.50	6.36
CANADIAN DOLLAR (7/25)	1.15	1.15	1.18
SWISS FRANC (7/25)	1.38	1.40	1.61
MEXICAN PESO (7/25)[3]	2,867	2,868	2,508

Sources: Major New York banks. Currencies expressed in units per U. S. dollar, except for British pound expressed in dollars.

MONTHLY ECONOMIC INDICATORS

	Latest month	Month ago	% Change year ago
ORDERS FOR DURABLE GOODS: MFG. (June) billions	$124.7	$128.8r	–0.4
HOUSING STARTS (June) annual rate, thous.	1,177	1,205r	–16.8
BUDGET SURPLUS OR DEFICIT (–) (June) millions	–$11,222	–$42,560r	NM
REAL GROSS WEEKLY PAY (June)	$164.86	$164.90r	–0.1

Sources: Commerce Dept., Treasury Dept., BLS

PRICES

	Latest week	Week ago	% Change year ago
GOLD (7/25) $/troy oz.	372.750	359.400	0.1
STEEL SCRAP (7/24) # 1 heavy, $/ton	110.50	110.50	0.0
FOODSTUFFS (7/23) index, 1967 = 100	223.4	224.7	0.6
COPPER (7/[illegible]) [illegible]	126.9	127.0	10.7
ALUMINUM (7/[illegible]) [illegible]/lb	73.0	73.0	–7.6
WHEAT (7/21) [illegible] $/bu.	3.08	3.13	–27.9
COTTON (7/21) strict low middling 1-1/16 in., ¢/lb.	79.95	78.90	17.5

Sources: London Wea[illegible] fixing setting, Chicago mkt., Commodity Research Bureau, *Metals Week*, Kansas City [illegible] mkt.

MONEY MARKET RATES

	Latest week	Week ago	Year ago
FEDERAL FUNDS (7/24)	8.02%	8.05%	9.14%
PRIME (7/25)	10.00	10.00	11.00
COMMERCIAL PAPER 3-MONTH (7/24)	7.89	7.95	8.64
CERTIFICATES OF DEPOSIT 3-MONTH (7/25)	7.98	8.03	8.69
EURODOLLAR 3-MONTH (7/18)	8.05	8.23	8.81

Sources: Federal Reserve Board, First Boston

MONETARY INDICATORS

	Latest week	Week ago	% Change year ago
MONEY SUPPLY, M1 (7/9)	$810.2	$817.7r	4.0
BANKS' BUSINESS LOANS (7/11)	322.0	322.9r	1.4
FREE RESERVES (7/11)	504r	639r	–40.3
NONFINANCIAL COMMERCIAL PAPER (7/11)	146.9	147.7	15.8

Sources: Federal Reserve Board (in billions, except for free reserves, which are expressed for a two-week period in millions).

# Raw data in the product[illegible] indicators are seasonally adjusted in computing the BW index (chart); other components (estimated and not listed) include machinery and defense equipment.
1 = Western Wood Produc[illegible] Assn. 2 = Southern Forest Products Assn. 3 = Free market value NA = Not available r = revised NM = Not meaningful

The 90s: Business Gateway to the Pacific Century

Business Week announces a special advertising section on the Asia Pacific Region.

Issue Date: November 12, 1990
Closing Date: October 1, 1990
Editions: California, West, Asia and China
Circulation: 295,000

The Pacific Rim represents unsurpassed opportunity for growth. The region has achieved substantial economic growth almost without precedent.

This November, Business Week will publish a special advertising section showing how your company can benefit from the extraordinary opportunities offered by this dynamic business region.

Designed to help you target the decision makers involved in Pacific Rim trade and investment, the section will reach nearly 300,000 Business Week subscribers in California, the West, Asia, Australia and China.

Be a part of "The 90s: Business Gateway to the Pacific Century." Don't miss this special opportunity to advertise your products and services to Pacific Rim business leaders.

For more information, contact:

New York: Barbara Daly 212-512-6664
•
San Francisco: Connie Bennett 415-954-9720
•
Hong Kong: Steve Marcopoto 8682010
•
Sydney: David Strike 922-2977
•
Melbourne: Ian MacDonald 820-2688
•
Tokyo: Paul Ishii 581-9811

BusinessWeek
THERE IS NO SECOND PLACE

Tenneco: where we're going.

A company's long range plan should have specific financial objectives. These are Tenneco's. One: earn a 20 percent or higher return on shareholders' equity. Two: generate cash each year in excess of our requirements for capital investment, working capital and dividends. Three: increase our earnings per share by at least 15 percent each year. Can we do it? Just watch. We're a diversified industrial company that knows where it's going. To learn more, call 1-800-345-9027.

TENNECO

Tenneco Gas (pipelines) • J I Case (farm and construction equipment) • Newport News Shipbuilding • Tenneco Automotive Packaging Corporation of America • Albright & Wilson (specialty chemicals) / Tenneco Minerals

Is CentraNet the best all around phone system for your business?

Well, Yes and No.

	CentraNet	Key Systems
Do I have to spend any money up front for special equipment?	NO	YES
Does my system go down if there's a power outage?	NO	YES
Does the system's features use the telephone company's central switch?	YES	NO
Is the system checked by computer 24 hrs. a day to prevent breakdown?	YES	NO
Is my technology automatically upgraded?	YES	NO
Can new feature packages be added on an individual basis instead of just a system wide basis?	YES	NO
Can I add extra features with just a phone call instead of having an installer come to my business?	YES	NO
Can I add lines and features to other locations with just a phone call?	YES	NO
Does CentraNet work with the phones I already have?	YES	NO

We thought you might appreciate a little help in choosing a new phone system for your company. A shopping list of sorts. Take a minute, go through the questions and answers.

You'll begin to realize why a CentraNet phone system from GTE is the best answer to your company's phone system dilemma. You don't need a Ph.D. in Phone. All you need to do is call 1-800-462-6000, and order CentraNet. The way we see it, a phone system that gives a small business anything less than complete peace of mind should be out of the question.

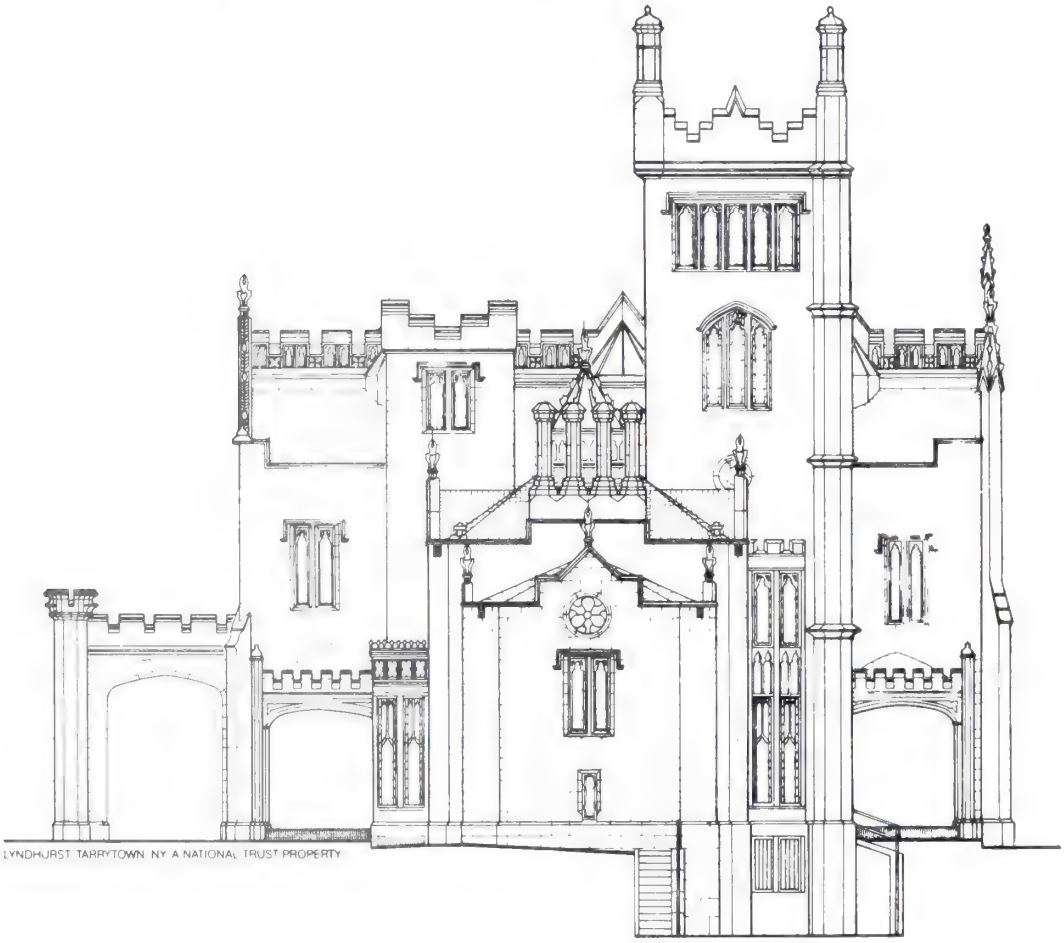
CentraNet

GTE

THE POWER IS ON

6C-CA

PRESERVATION
PLAN ON IT



Planning on restoring a house, saving a landmark, reviving your neighborhood?

No matter what your plans, gain a wealth of experience and help preserve our historic and architectural heritage. Join the National Trust for Historic Preservation and support preservation efforts in your community.

Make preservation a blueprint for the future.

Write:

National Trust for Historic Preservation
Department PA
1785 Massachusetts Ave., N.W.
Washington, D.C. 20036

6D-CA

BusinessWeek

-IN-CHIEF: Stephen B. Shepard
ING EDITOR: John A. Dierdorff
: William Wolman
NT MANAGING EDITORS:
aughan, Mark Morrison, Anthony J. Parisi
RECTOR: Malcolm Frouman
EDITORS: Bob Arnold, Nancy Cardwell, Robert J. Dowl-
uart Jackson, Richard F. Janssen, Geoff Lewis, Sally
Ciro Scotti, Lee Walczak (Washington), G. David Wal-
eymour Zucker
IAL PAGE EDITOR: John E. Pluenneke
F CORRESPONDENTS: Keith G. Felcyn
ATIONAL EDITION EDITOR: Frank J. Comes
WRITERS: Anthony Bianco, John A. Byrne, Judith H
nski, John Hoerr, Gene G. Marcial, Bruce Nussbaum,
earson, Otis Port, Chris Welles, Brenton Welling
ATE EDITORS: Duane E. Anderson, Robert Barker, Eliza-
nrlich, Marc Frons, William J. Holstein, Jeffrey M. Lader-
Villiam D. Marbach, Mark N. Vamos
OR, EDITORIAL SYSTEMS & OPERATIONS: Thomas J. Reed
SYSTEMS MANAGER: Richard I. Ulman
E EDITOR: Lawrence Lippmann
MICS: James C. Cooper (Business Outlook editor), Kath-
adigan (Assoc.). Karen Pennar (Economics editor), Chris-
Farrell (Assoc.), Michael J. Mandel (Assoc.). Gene Koretz
mic Trends editor). William Glasgall (International)
TMENT EDITORS: Books: Denise Demong Corporate Fin-
arry Light, David Zigas (Assoc.) Industries: Thane Peterson
ation Management: Jeffrey Rothfeder. Information Pro-
g: John W. Verity. International Edition: Elizabeth Weiner
tional News: Peter Galuszka Investment Banking: Jon
n. Labor: Aaron Bernstein Legal Affairs: Michele B Galen
ing: Christopher Power, Amy Dunkin (Assoc.). Markets &
nents: Gary Weiss. Media: Susan Duffy Money & Banking:
eehan. News: Harris Collingwood People: Peter Finch Per-
Business: Donald H. Dunn Science: Emily T. Smith Score-
: Robert Mims. Telecommunications: Peter Coy Transpor-
Michael Oneal
DITORS: Brian Bremner, Deidre A Depke, Naomi Freundlich,
Hager, Fred F Jespersen, Mark Landler, Leah J Nathans,
Reed, Monica Roman, Andrea Rothman, Troy Segal, Suzanne
ANT EDITOR: Laura Zinn
DITORS: Harry Maurer (Deputy chief), Michael Mercurio, Joan
(Asst. chiefs), Marc Miller, Jack Robbins, Jim Taibi (Sr Copy
, Tim Belknap, Pam Black, Prudence Crowther, Carl Desens,
Green, Aleta Kaufman, Cynthia McClean, David Pengilly Malka
Barbara Tierney, Dalia Kandiyoti, Kim Jacobs, Aida Rosario,
a Stead (Researchers)
ICTION COPY EDITORS: Donald Halsband (Chief), Hallberg
ndsson, Robert S. Norman, Celine Keating, Karen Leiner, Ste-
Romanoff
aura Baer, Steven Taylor (Deputy directors), Jeri Hansen, Eric
berg (Assoc. directors), Pamela Harris, Craig Socia (Asst direc-
Graphics: Arthur Eves (Director), Joan Danaher (Deputy direc-
b Doyle (Sr. Illustrator), Laurel Daunis, Ray Vella (Illustrators)
ction: Mary Lee Schneider (Mgr.), Stephen J. Romeo (Asst

S: Sue Bloom (Deputy Picture editor), Scott Miyn (Assoc Pic-
itor), Todd James, Anne Murray, Ronnie Weil (Asst editors)
en Daly (Researcher) Bettina Baudoin (Researcher - Paris)
lark (Traffic), Lawrence Crowe (Librarian)
RIAL OPERATIONS: Albert E Baker, Richard Balestrino, A. Pe-
n, Yvonne Rodriguez, Claire Worley (Production managers)
s R. Dowd, Sharon L. Eng, Fidel Lee, José L Martin, Jane M
son, Craig Sturgis, Karen Turok, Ilse V Walton, Nicholas White
p editors), Felix Lindicy (Makeup asst.). Donald C. Pearson
manager), Dale I. Arnold, Edgardo Torres (Production assts.)
SPONDENTS: Jerome Zukosky (Deputy chief). Atlanta: Chuck
s (Mgr.), Walecia Konrad Boston: Keith H. Hammonds (Mgr.),
Jereski, Gary McWilliams. Chicago: James E. Ellis (Mgr.), David
g, Kevin Kelly, Julia Flynn Siler, Lois Therrien Cleveland: Za-
Schiller (Mgr.), Maria Mallory, Stephen Phillips Connecticut:
Vogel (Mgr.), Lisa Driscoll Dallas: Wendy Zellner (Mgr.), Jim
o Denver: Sandra D. Atchison (Mgr.), William C. Symonds (Sr
pondent). Detroit: James B. Treece (Mgr.), David Woodruff
on: Mark Ivey (Mgr.). Los Angeles: Ronald Grover (Mgr.),
Armstrong (Sr. Correspondent), Kathleen Kerwin, Eric Schine
: Gail DeGeorge (Mgr.), Antonio N. Fins Minneapolis-St. Paul:
l Mitchell (Mgr.). Philadelphia: Joseph Weber (Mgr.) Pitts-
: Gregory L. Miles (Mgr.), Michael Schroeder San Francisco:
O'C. Hamilton (Mgr.), Richard Brandt, Barbara Buell, Robert Hof,
Shao. Seattle: Don Jones Yang (Mgr.) Washington: Stephen
dstrom (Sr. News Editor), Stan Crock (News Editor), Amy Borrus,
Cahan, John Carey, Paula Dwyer, Dean Foust, Susan Garland,
d Gleckman, Dave Griffiths, Douglas A. Harbrecht, Bill Javetski,
Lewyn, Paul Magnusson, Mike McNamee, Seth Payne, Tim
Catherine Yang. Bonn: John Templeman (Mgr.), Gail Schares
eis: Jonathan Kapstein (Mgr.) Hong Kong: Dinah Lee (Mgr.),
Engardio London: Richard A. Melcher (Mgr.), Mark Maremont
o City: Stephen Baker (Mgr.) Moscow: Rose Brady (Mgr.)
Stewart Toy (Mgr.), Jonathan B Levine, Blanca Riemer Rome:
Rossant (Mgr.) Sao Paulo: Jeffrey Ryser (Mgr.) Tokyo: Robert
Mgr.), Neil Gross, Ted Holden
ORIAL SERVICES: Broadcasting: Ray Hoffman Business
ger: Barbara Boynton Information Services: Jude Hayes
tor), Judi Crowe (Asst. editor), Dana Gordon, Fred Katzenberg,
Khatami, Rex Long Public Relations: Christine Summerson,
hine Coppola. Reprint Permission: Vivian J. K Betton
ems: Ron Brayer, Courtenay Eddy

ISHER: John W. Patten
P, DIRECTOR OF MARKETING: John J Bedell
P, OPERATIONS: Gary B. Hopkins
INTERNATIONAL: Gerd Hinske, Earl S. Moore, Jr.
PLANNING & DEVELOPMENT: Barbara Munder
CIRCULATION: Kitty Carroll Williams
SALES: Constance E. Bennett (San Francisco), John R. Camp-
Stamford), Charles W Hennessy (Philadelphia), Irwin Kornfeld
York), Thomas O. McDonough (Chicago)
CTOR, ADVERTISING BUSINESS: Linda F. Carvalho
CTOR, PRODUCTION: Mario J. Talluto

Readers Report

INNOVATION: REFLECTIONS ON THE GLOBAL RACE

Having just read this superb Special Issue ("Innovation: The Global Race," June 15) from cover to cover, I am moved to ask, "What's next?"

How do you move our business leaders, our politicians, and especially our students, parents, and teachers to embrace our dedicated scholars and innovators as role models, instead of our mercenary managers, athletes, and entertainers?

William Papier
Columbus, Ohio

I believe your Special Issue missed one of the most critical factors inhibiting innovation in the U. S.: our inability to couple financial resources with our technical capabilities, particularly in relation to small companies and entrepreneurs.

There is no great secret about what is wrong. Anyone trying to obtain capital from U. S. sources for leading-edge technology, as I am, can tell you.

Howard Burke
Director of Engineering
NK Biotechnical Engineering Co.
Amesbury, Mass.

It is incredible that BUSINESS WEEK would mislead its readers by citing a comparison of capital costs in Japan and the U. S. ("The myth that America can't compete," Innovation Issue). It is true that Japan has been able to borrow at low interest rates in Eurodollar markets. But the ultimate buyers of those international flotations are Japanese financial institutions themselves.

Andrew B. Kim, President
Sit/Kim International
Investment Associates
New York

INDUSTRY NEEDS BRAINS, NOT BRAWN

The National Center on Education & the Economy does a great disservice to young people, especially those on the lower end of the socioeconomic ladder, to publish a report erroneously stating that industry wants low-cost brawn instead of technically trained brains ("Business shares the blame for workers' low skills," Labor, June 25).

The survey of thousands of manufacturing and commercial enterprises by various American trade organizations has conclusively shown that new hires must have considerably more skills than their counterparts of 15 years ago.

Robotics, automation, and computerization do not reduce factory and office skills to "idiot-proof" jobs; instead, they require significant post-high school and in-house training.

James K. Baker, Chairman
U. S. Chamber of Commerce
Washington

CORRECTIONS & CLARIFICATIONS

Royal Dutch/Shell Group was inadvertently omitted from a list of 15 companies with the biggest profits last year ("The Global 1000," July 16, page 111). Its profit was $6.54 billion—No. 1 among the Global 1000.

The headline "Big Blue Scraps Its Typewriters" (In Business This Week, July 30) could be read to imply that IBM had ceased producing typewriters. As the story made clear, IBM is considering a sale of the business.

CLEARING THE AIR ABOUT ASBESTOS

The report "Now 'passive' asbestos exposure looks like a killer" (Science & Technology, June 25) is a painful paradigm of what Environmental Protection Agency Administrator William Reilly recently called the "considerable gap . . . between what the EPA has been trying to say about asbestos and what the public has been hearing."

Numerous government agencies and expert panels—including the EPA, the British Dept. of Environment & Health Safety Executive, and a Canadian royal commission—have concluded that airborne asbestos levels in buildings pose negligible risks to occupants. The EPA now stresses that "the unnecessary removal of asbestos-containing materials

BUSINESS WEEK
AUGUST 6, 1990 ***3172
ISSN 0007-7135

Published weekly except for one issue in January by McGraw Hill Inc Founder James H. McGraw (1860-1948)
Executive, Editorial, Circulation, and Advertising Offices McGraw Hill Building, 1221 Avenue of the Americas, New York, N.Y. 10020 Telephone (212) 512-2000 Domestic Telex 127960 International Telex 232365, Cable McGraw Hill New York TWX 710-581-4879
U.S. subscription rate $39.95 per year, 2 years $69.95, 3 years, $94.95
Single copies, $2. Write for rates in other countries.
Business Week Subscriber Services 1-800-635-1200

European Circulation Center, McGraw-Hill House, Maidenhead, Berks, England Telephone 0628-23431, Telex 848640
Postmaster Please send address changes to BUSINESS WEEK, P O Box 430, Hightstown, N.J 08520. Second-class postage paid at New York, N.Y., and at additional mailing offices Postage paid at Montreal, P.Q Registration Number 9010. Copyright © 1990 by McGraw-Hill Inc All rights reserved. Title registered in U.S. Patent Office

Officers of McGraw-Hill, Inc.: Joseph L. Dionne, Chairman, President and Chief Executive Officer, Robert N. Landes, Executive Vice President, General Counsel, and Secretary, Harold W McGraw, III, Executive Vice President; Frank D. Penglase, Senior Vice President, Treasury Operations

PHOTOCOPY PERMISSION: Where necessary, permission is granted by the copyright owner for those registered with the Copyright Clearance Center (CCC), 27 Congress St., Salem, Mass. 01970, to photocopy any article herein for the flat fee of $1.50 per copy of each article Send payment to the CCC. Copying for other than personal or internal reference use without express permission of McGraw-Hill is prohibited Address requests for customized bulk reprints to Business Week Reprints, P. O. Box 457, Hightstown, N. J 08520, or call 609 426-5494 ISSN 0007-7135/90/$2 00

Laser printing just got

OKIDATA introduces OKILASERS. A full line of business smart laser printers that's compatible with both HP® and your budget. Personal to PostScript®, OKILASERS deliver the same tank tough™ performance and reliability that OKIDATA has built into more than 3,000,000 printers. OKILASERS by OKIDATA . . . a printer for every business.

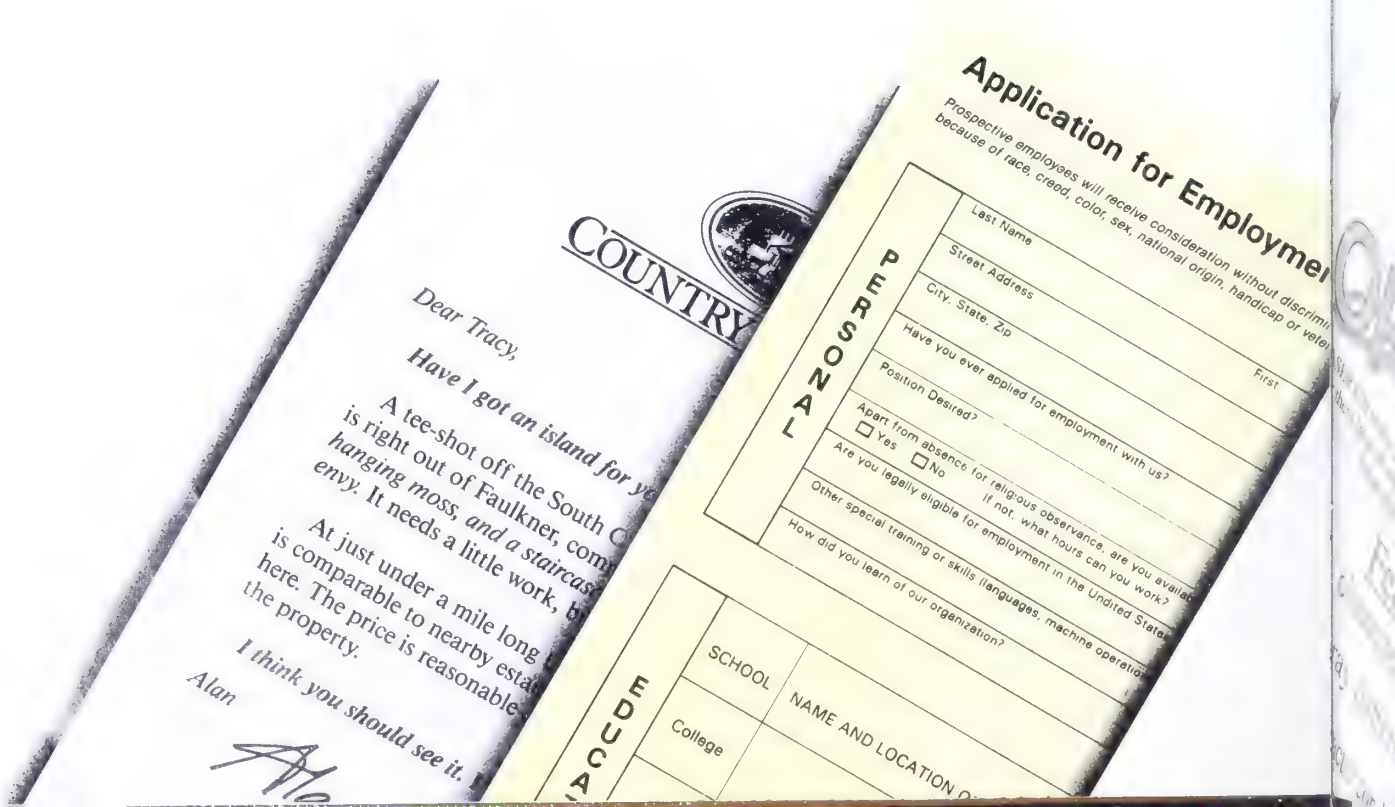
Call 1-800-OKIDATA for the tank tough dealer nearest you.

OKIDATA®
an OKI AMERICA company

We put business on paper.

OKIDATA is a registered trademark of Oki America, Inc., Marque déposée de Oki America Inc. OKILASER™ is a trademark of Oki Electric Industry Co. Ltd. Tank tough™ is a trademark of Oki America, Inc.

HP, Adobe PostScript, Macintosh are trademarks of their respective corporations.



our times better.

PC MAGAZINE
EDITORS' CHOICE
June 12, 1990
OkiLaser 400

OKILASER™ 400

Small. Personal. Affordable. 4 pages per minute. 17 fonts. Holds 200 sheets. A genuine laser. A genuine bargain.

OKILASER™ 800

For heavy duty use. 8 ppm. 26 fonts. Expandable to PostScript® and dual bins. A real workhorse.

OKILASER™ 820

Prints up the side, across the other, drop shadows, stretch letters, outline, fill, and sets fonts up to 2″ instantly, 8 ppm.

OKILASER™ 840

True Adobe PostScript.® Perfect for desktop publishing on DOS or Macintosh® systems. 8 ppm.

EYE OPENING

820 makes presentations pop. And correspondences quake. n from all angles. With messages of growing magnitude. Laser printing bliss. And then some.

Features

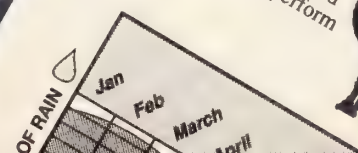
haracter outline

pattern filler

OUT IN THE AFRICAN

It's a jungle out there. Desktop publishing has evolved and proliferated so much that the peripherals which make it possible have to be tough to survive in this market. And the tougher the market, the more demanding the tests, the more savvy users turn to the OKILASER™ 840 printer.

The OKILASER 840 from OKIDATA provides high performance Adobe PostScript® with 35 scalable fonts resident. Capabilities are unlimited with the power to perform



TO OUR READERS

Almost a decade ago, we began publishing BUSINESS WEEK International, a separate magazine that today has a circulation of more than 110,000 outside North America. Now we have taken another big step to reach readers overseas: a Russian-language edition.

The first issue of BUSINESS WEEK/USSR is being distributed to some 50,000 Soviet managers, entrepreneurs, and government officials. Soviets can even buy it at kiosks for 5 rubles per copy. The magazine contains stories translated from our domestic and international editions.

The 72-page premier issue of the magazine, printed in full color in Minsk, features a cover story on the reunification of Germany and an interview with President Bush. The magazine will be published bimonthly for the rest of this year and go monthly in 1991.

BUSINESS WEEK/USSR is the first Western business magazine published in the Soviet Union. It is a joint venture between McGraw-Hill Inc., our parent company, and Kniga Publishers, a subsidiary of Goskómizdat, the U. S. S. R. State Committee for Publishing, Printing & Book Trade, which is based in Moscow. Kniga will select stories for each issue from BUSINESS WEEK, translate the articles into Russian, and then print and distribute the magazine. We will be selling advertising around the world, sharing the revenue with Kniga.

The Russian edition is our third foreign-language magazine. It joins BUSINESS WEEK/China, first published in 1986, and BUSINESS WEEK/Hungary, which began publishing in May. BUSINESS WEEK/China, a bimonthly, with a circulation of 53,000, is a joint venture with the International Trade Research Institute of the People's Republic of China. BUSINESS WEEK/Hungary, a monthly that has a circulation of 8,000, is a joint venture with Hírlapkiadó Vállalat, a publisher based in Budapest.

BW/USSR: PRINTED IN MINSK

IN PRINT IN HUNGARY AND CHINA

BUSINESS WEEK International Publisher Gerd Hinske deserves much of the credit for the successful launch of our Soviet edition. He first began seeking a Russian partner in 1988, traveling often to Moscow from his office in Lausanne, Switzerland. The Soviets, Hinske says, were eager for business information from the West and were especially interested in our coverage of technology, management, marketing, and finance.

BUSINESS WEEK was one of the early news organizations to cover the Soviet Union. We first had a correspondent in Moscow in the 1940s and established a bureau there in 1958. Now we are pleased to be in print in the Soviet Union as economic reform begins to take shape.

John W. Pelz
Publisher

Stephen B. Shepard
Editor-in-Chief

may actually pose a greater health risk than simply leaving them alone."

Contrary to the article's claim, federal law does not mandate removal or reinsulation of exposed asbestos in schools. Congress passed the asbestos-in-schools law to manage, not remove, asbestos-containing materials. That this law is now seen as a $6 billion-plus asbestos-removal fiasco is why EPA Administrator Reilly is trying to close the gap between what is said and heard—or read—about this controversial and costly public health issue.

John F. Welch, President
Safe Buildings Alliance
Washington

B-SCHOOL THEORY FOR THE REAL WORLD

Regarding "The prof who packages what he preaches" (Management, July 2), any business school professor or management consultant who knocks Michael Porter is just suffering a case of big-fee envy. I have found that Porter's models help managers think more creatively about competition and that his ideas are relatively easy to apply in real-world situations. Before Porter revitalized the field of industry and competitive analysis, academic business professors wrote books about strategy that students didn't understand and business people didn't read. Criticizing Porter's work for not being "original research" is about as legitimate as criticizing Sony for commercializing the transistor radio and the VCR.

John N. Doggett, President
International Management
Development Center
Austin, Tex.

SMITH CORONA IS KEYED INTO A GROWING MARKET

Smith Corona ("Smith Corona's market is tapping out," Top of the News, July 16) pioneered the personal word processor market in late 1986 to pursue a huge segment of users who want cost-effective word processing. While PC prices are dropping, the average PC on the market today is still over $1,000, usually without the printer, as compared to personal word processors ranging from $299 to $599, including the printer. The price spread still remains very significant.

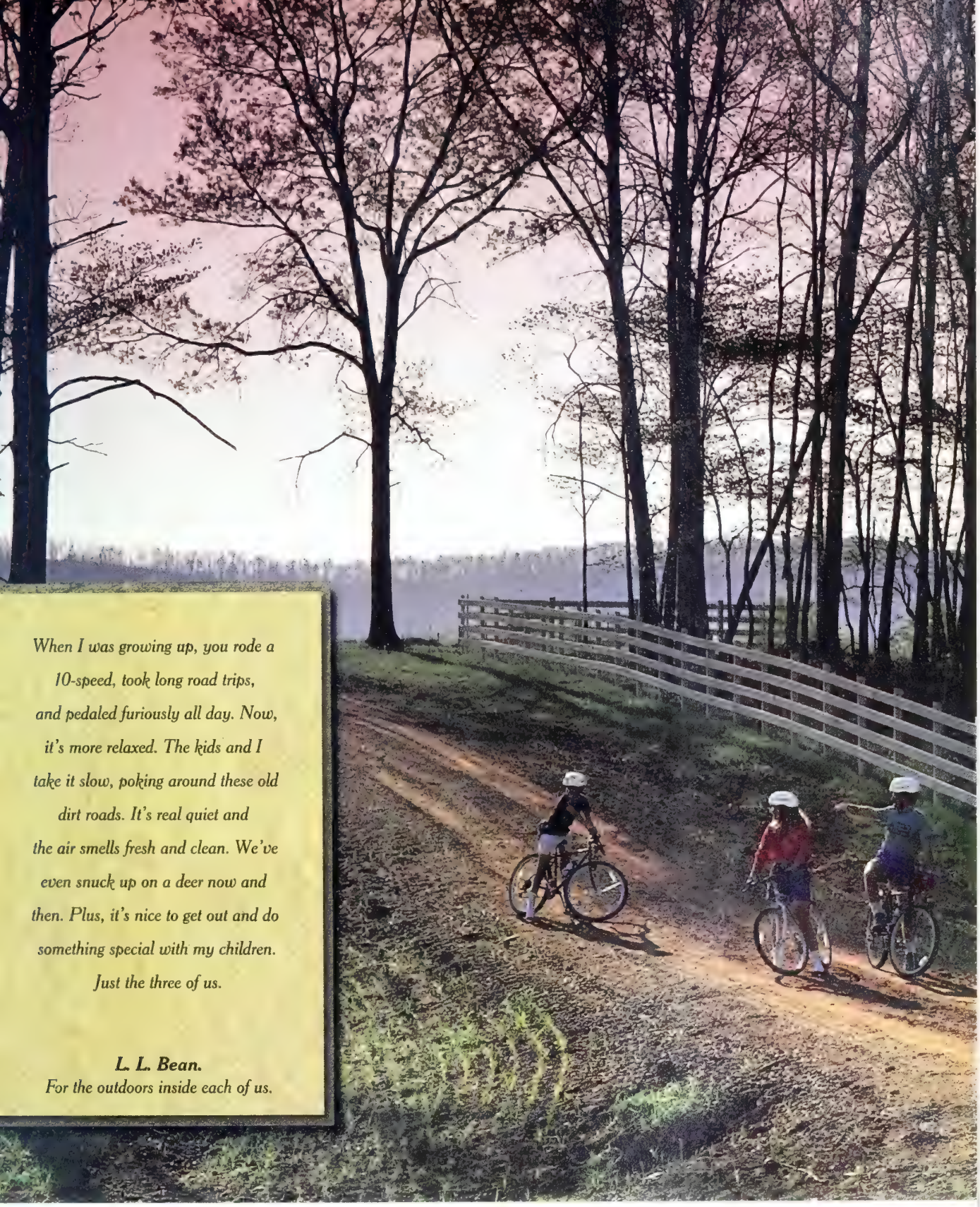
Sales of portable electronic typewriters and personal word processors have almost doubled in the past five years. In less than four years, industry unit volume in personal word processors has grown from zero to 450,000.

Smith Corona continues its strong leadership position in information processing and communications products that have a good future, both in the North American market and in our growing international market.

Additionally, William D. Henderson, our new president and chief operating officer, was brought into the company by me, and not because of Hanson's displeasure as inferred in your story.

G. Lee Thompson, CEO
Smith Corona Corp.
New Canaan, Conn.

Letters to the Editor should be sent to Readers Report, Business Week, 1221 Avenue of the Americas, New York, N. Y. 10020. Fax: (212) 512-4464, Telex: 12-7960, Intl. 4998204. All letters must include an address and daytime and evening telephone numbers. We reserve the right to edit letters for clarity and space.



When I was growing up, you rode a 10-speed, took long road trips, and pedaled furiously all day. Now, it's more relaxed. The kids and I take it slow, poking around these old dirt roads. It's real quiet and the air smells fresh and clean. We've even snuck up on a deer now and then. Plus, it's nice to get out and do something special with my children. Just the three of us.

L. L. Bean.
For the outdoors inside each of us.

For 78 years, L. L. Bean has offered durable, practical products for men and women who love the outdoors. Our catalog includes active and casual apparel, footwear, equipment and accessories. All fully guaranteed and honestly priced. If you'd like a copy, please call 1-800-548-4307 anytime.

L.L.Bean®
FREEPORT, MAINE

© L. L. Bean, 1990

NEVER

UNDERESTIMATE

THE POWER

OF CASH.

©1990 Georgia-Pacific Corporation All Rights Reserved

It's no secret that when we bought
Great Northern Nekoosa, we took on some debt.

Wall Street noticed.

But it's also no secret that we acquired a world-class paper company with a very large cash flow.

Wall Street noticed.

Add to that our own substantial cash flow, and the picture gets clearer. Because the simple fact is, the new Georgia-Pacific will be capable of generating 1.5 billion dollars in annual cash flow from operations. And when combined with the possible sale of non-strategic assets, we should retire our debt far quicker than many expected.

And that's the sort of news all kinds of people notice.
Especially our shareholders.

Georgia-Pacific

CAN AMERICA COMPETE? THREE THOUGHTFUL ANSWERS

Anxious self-absorption is a peculiarly American trait. As individuals, we ceaselessly agonize: Are we healthy enough, rich enough, successful enough? And as a nation, we ask similar questions: Can America compete? Are we still the No. 1 power? Is the nation in decline? Three years ago, Yale University historian Paul Kennedy—an Englishman—underscored these worries in his book *The Rise and Fall of the Great Powers*. "Imperial overstretch"—years of America playing policeman to the world—had diverted resources and led to the country's economic decline, Kennedy argued. At a time when the U. S. trade deficit was widening and Japan was besting us around the world, Kennedy's views struck a nerve.

Since then, U. S. exports have revived, and the trade numbers don't look quite so bad. The Berlin Wall has crumbled, and capitalism is heading east across the Elbe. These events have provided support for those who hold that America is not on the skids. Publishers, sensing a rich vein, have been busy issuing rebuttals to Kennedy's book.

Most of these volumes concede that America is not as powerful as it once was, but they assure the reader that in a multipolar world, such power isn't required. Drawing on economic data and analysis, the authors voice cautious optimism about America's future and a basic faith in its ability to rebound. This viewpoint is reflected in the titles: *The Myth of America's Decline* by Henry R. Nau, *Bound to Lead* by Joseph S. Nye Jr., *America's Economic Resurgence* by Richard Rosecrance.

These books make some obvious points, and they take a long time doing so. They won't help you understand the condition of the U. S. economy vis-à-vis its competitors or how it got there. They won't educate you about the key determinant of economic growth, productivity, or tell you anything you don't know about improving it. If you want to know more about those issues—and they're the ones we should be thinking about when we think about competitiveness—forget the Kennedy-was-wrong books. Far more satisfying are three new works penned by economists, all containing surprising and useful information.

First, for a basic and thorough report on the state of the U. S. economy and its prognosis, pick up Paul Krugman's *The Age of Diminished Expectations: U. S. Economic Policy in the 1990s*. Krugman, a professor at MIT, does what few academics can: He translates theory into readable, even enjoyable prose, making difficult concepts seem simple. This is Economics 101, updated and laced with bold opinions and irreverent asides.

Krugman is willing to jettison mainstream economic views, as when he observes that "we could live very nicely" with an inflation rate of 4% to 5%, provided it remains steady and predictable. And he concedes that economists frequently don't have all the answers. They can't explain, for instance, why U. S. productivity growth has been poor.

As his title suggests, Krugman's view of the future is not a happy one. Yet it wouldn't be fair to call him gloomy. As he walks readers through topics such as income distribution, unemployment, the budget deficit, the S&L scandal, and competition with Japan, he paints a complete and fair picture of today's economy. The U. S. is not yet in dire straits, he says, but it must cope with numerous constraints on growth, such as high indebtedness to foreigners. U. S. voters and policymakers, Krugman argues, have become accustomed to poorer economic performance and, by virtue of their indifference, guarantee that growth will be modest in coming years. It's a dispassionate conclusion, and the most reasonable one, given the available evidence.

The only thing off-putting about Krugman's book is its presentation. Published by the Washington Post Co. in March, it is the first of a new series dubbed Briefing Books—slim volumes addressing economic topics, plushly packaged to appeal to executives and professionals. Krugman's 110-page work, slipcased in maroon cloth, costs $195. Fortunately, MIT Press is reissuing it this fall for $17.95.

"Productivity isn't everything, but in the long run it is almost everything," Krugman observes. And the thorny subject of productivity, or output per worker, is taken up in greater depth in *Productivity and American Leadership: The Long View* by William J. Baumol, Sue Anne Batey Blackman, and Edward N. Wolff (MIT Press, $29.95).

Baumol, a Princeton University economics professor; Blackman, a research assistant at Princeton; and Wolff, an economics professor at New York University, marshal a wealth of comparative economic data. They demonstrate that the U. S. not only remains ahead of its international competition in absolute levels of productivity, but also that the growth rate of American productivity over the past couple of decades is not so very different than in the past. Indeed, the 20 years of strong growth that followed World War

pear to have been an aberration. ımol and company aren't entirely ıine, however. They worry about ıuickening pace at which foreign etitors are gaining on the U. S. explore some explanations popular ademia—"convergence" theories, xample, which stipulate that the rds inevitably catch up to the lead- he book can be read in discrete ents, since each chapter addresses ate issues, and the more technical sis is confined to appendices.

nically, the book that focuses most yingly on the key issue in competi- ess doesn't address America's com- ve stature at all. It is *The Lever of es: Technological Creativity and omic Progress* by Joel Mokyr (Ox- University Press, $24.95). Just as can be no growth in living stan- without productivity gains, Mokyr ts, there can be no productivity without technological progress.

kyr, an economics historian, takes rs on an unusual tour of ancient , medieval Europe, Renaissance It- and pre-1400 China on the way to in's Industrial Revolution. He re- on technological progress in these ties and how the failure to continu- innovate doomed the once-power- economic stagnation. The history he examples Mokyr uses are a de- to read.

kyr's work is clearly historical, and voids applying his analysis to the nt day, but readers are constantly oked to try to make their own infer- s. For instance, Mokyr demolishes claim that war and military hard- create technological spin-offs for ty—a notion that some people have to justify defense spending. War- production actually interfered with ndustrial Revolution, he says. And r notes that many innovations re- d from the appropriation and per- on of inventions made elsewhere. e's a modern parallel in the success war Japan had in first imitating, making improvements upon, Ameri- technology.

ken together, these three books pro- a realistic and comprehensive as- ment of America's place in the world highlight technology's key role in rmining that position. In a changing d governed by economic rather than ary competition, the basis of future th and rising living standards will n fiber optics, biotechnology, and undiscovered technologies. Ameri- position will depend above all on swiftly its citizens innovate and rapidly businesses and society t and build on innovations.

BY KAREN PENNAR

n Pennar is BUSINESS WEEK's eco- ics editor.

Ten years ago you said "I do." This year, tell her you still do.

The Diamond Anniversary Band.
This year, tell her you'd marry her all over again.
A diamond is forever.

macy's

Suggested retail price for rings $1,000-$2,000. For more information, call 800 44MACYS.

A VERMONT CONFERENCE CENTER THAT TURNS BUSINESS INTO PURE PLEASURE

One of Vermont's finest mountain resorts is in Stowe, just 35 minutes from Burlington International Airport. At Topnotch, a distinguished resort, spa and conference center on 120 country acres, our fully equipped facility accommodates from 10 to 250 with every state-of-the-art convenience. For pure pleasure, indoor and outdoor tennis, a full-service spa, indoor and outdoor pools, golf, miles of hiking, biking and riding trails and the East's finest skiing are all at your doorstep. Our professional staff custom tailors every conference detail to your style. And guarantees the personal care your successful meeting demands.

Call us at **800-451-8686** *(Eastern US)* **800-677-8686** *(VT)* or **802/253-8585**.

TOPNOTCH AT STOWE RESORT AND SPA

Mt. Road, Stowe, VT 05672
A 4-star, 4-diamond resort

There's a critical difference between high speed and high performance.

The new 164S high performance luxury sedan is one of those exceptional cars inherently equipped to handle the 140-mile-an-hour+ test track speeds it can achieve. With things like electronically controlled suspension, ABS braking and driver-side air bag standard.

But perhaps the most basic reason for the prowess of the 164S is also the simplest. It's an Alfa Romeo. The product of eight decades of racing heritage.

In city driving, it is a quiet cocoon whose civilized manners and luxury belie its power. At freeway speeds, it is solid, stable and agile. And at truly high speeds, unlike most cars, its sense of competence rises rather than falls.

Most automobiles today can go fast, but most of them probably shouldn't.

Its Alfa Romeo Assurance Program is high performance as well. With coverage that even include free emergency roadside assistance and scheduled maintenance.*

The Alfa Romeo 164S luxury sedan. One of those rare cars that is so good it makes you feel like a bette driver.

For more information, call: 1-800-245-ALFA.

Alfa Romeo.
The legendary marque of high performance.

ALFA ROMEO

REFORMING CONGRESS: WHY LIMITING TERMS WON'T WORK

BY GARY S. BECKER

Only an unrealistic view of human nature could presume that taking away the right to continue at a job will improve performance. More likely, congressmen will take less interest in their work and will spend their time arranging future careers

Critics on both the right and left agree that Congress is not working properly. The hostility is evident in the hackles raised by the relatively modest $12 million pay raise members voted themselves last year and in the sharp decline in voting in congressional contests during non-Presidential election years.

Some of the blame is often placed on the advantages incumbents have over challengers. According to opinion polls, most Americans favor a constitutional amendment to limit congressional service to a few terms—one or two for senators and three to six for representatives. Although I agree that Congress should be reformed (BW—Apr. 16), surely limiting members' terms is not the way to do it—and could even be counterproductive.

During the past 50 years, the probability that an incumbent will win reelection has risen dramatically—to over 90% for representatives and more than 70% for senators. These numbers overstate the true advantage, since incumbents who expect to lose tend not to run. In 1986, six senators out of the 33 with terms ending and more than 50 representatives did not seek office again.

LEARNING THE ROPES. Even so, incumbents clearly have enormous advantages over challengers. They have name recognition, opportunities to go on television and radio, franking privileges, power to do favors for constituents and other interest groups, and much easier access to campaign funds than challengers do.

But longer congressional service is also part of a general trend in the U. S. and other modern economies for workers to remain at the same jobs. Skilled workers with more than a few years' experience seldom change jobs. They need so much training and knowledge to perform well that frequent job changes would greatly reduce their productivity.

Members of Congress, too, need many years to learn the ropes. For example, mastering the intricacies of military affairs to weigh the seemingly plausible arguments of brass hats who have spent their adult lives in uniform takes a long time. Members need the background to see through self-serving pleas, whether from environmental activists or chemical industry spokesmen. These are reasons voters would be likely to return incumbents to office even if they did not have other advantages over challengers.

Critics concede that increased skill often comes with congressional seniority. They contend that these real advantages of incumbency are outweighed by the pernicious influence of political action committees and other special-interest groups that help finance campaigns. But limiting congressional terms might increase rather than reduce the political power of such interest groups because candidates unable to rely on the various advantages of incumbency might become yet more dependent on promising favors in exchange for votes and campaign contributions.

In addition, those in Congress who are unable to hope for lengthy careers will be tempted to favor groups that can provide employment or consulting fees when their careers on Capitol Hill are over. Lawyers and other officials who leave government agencies often become employed by groups they had dealt with, and a similar pattern is probable for senators and representatives forced to retire after short stints.

POLITICAL FAVORS. Supporters of limited terms sometimes claim that members who did not have to worry about reelection would become more dedicated proponents of the social interest, instead of advocates of partisan positions. But isn't it much more likely that members who cannot look forward to a long tenure will take less interest in their work and spend their time arranging future careers? Only an unrealistic view of human nature and how people respond to incentives could presume that taking away the right to continue at a job will improve performance.

Congress has serious problems not because incumbents have immense advantage, but mainly because thousands of groups look to the federal government for political favors. Legislatures in other democracies also succumb to the political pressures of various special interests, although candidates elsewhere usually are much more subject to party discipline and do not have to rely so heavily on raising campaign contributions from interest groups.

The posturing and silly behavior in Congress may vastly exceed those of representatives in other countries, but the bottom line is whether tariffs and import quotas, agriculture policies, and other legislation are worse in the U. S. I don't think so: At least the U. S. has avoided high marginal income-tax rates, extensive nationalization programs, and many other examples of bad legislation found in European democracies.

Effective reform must reduce the political power of voting blocs and special interests so that Congress can concentrate on issues that cannot be handled adequately by states or the private sector. I do not know of any easy way to accomplish this. However, it seems clear that reducing incumbents' advantages will not significantly improve how Congress works, and it could well make matters worse. ▣

GARY S. BECKER IS UNIVERSITY PROFESSOR OF ECONOMICS AND SOCIOLOGY AT THE UNIVERSITY OF CHICAGO

Canon Laser Class.™

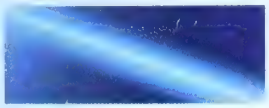
Buy a Canon Laser Class fax and it could be the last fax you'll buy for a long time.

That's because a Laser Class fax has features that won't soon be outmoded. They actually keep pace with expanding needs.

Like the memory capacity of our new FAX-L770. As your fax network expands, the L770 can expand its capacities, too, allowing greater volumes to be received into memory or stored for transmission.

Laser Precision on Plain Paper.

Canon is the market leader in plain paper fax. And the L770 uses a laser process to print images on plain paper.



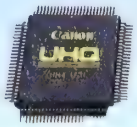
Because of laser printing, they're faithful to the original.

Faxes look better, last longer, and won't curl or fade like thermal paper. And you won't have to copy them before filing.

A Better Image, Sending and Receiving.

The L770 can improve an incoming image. An exclusive feature called Hyper-Smoothing actually compensates for the image quality of an incoming fax. So the images you receive are clearer, without the fuzzy edges that can make reading text difficult.

And with Canon's UHQ imaging technology,



the images you send are better, too. Even combinations of small type and halftones are virtually indistinguishable from their original.

Built-In Reliability.

The L770 is also designed to be more reliable than other plain paper laser facsimiles. Canon's exclusive cartridge system

stores everything that can run out or wear out in one neat disposable unit.

Replacing them is as easy as popping in a new cartridge.*

The Canon Laser Class FAX-L770. After a few minutes you'll be glad you bought it. After a few years you'll be ecstatic. For information, call 1-800-OK CANON.

The only thing not built into our laser facsimile is obsolescence.

Canon
LASER CLASS
FAX-L770

1989 "Manufacturer of the Year"
Awarded by National Office Machine Dealers Association to Canon USA, Inc. for outstanding dealer support.

*Cartridge sold separately

"Software for mahogany dealer doesn't grow on trees."

"I sell exotic hardwoods, so I need software that's pretty unusual. I spent two years trying to find the right thing, without any luck.

"I was about to give up and hire a programmer when I called IBM. In one day, they found what I'd been looking for.

"You know what amazes me most about that? That I hadn't called them sooner."

The Solution. Over 13,000 software applications (from IBM and others) are listed in the data base at IBM's National Solution Center. Along with over 14,000 customer references.

So not only can we find software for all types of IBM systems, and virtually any kind of business, we're likely to find you another person who's already using it.

To put IBM's National Solution Center to work for you, call us at 1 800 IBM-6676 ext. 975. We'll arrange for an IBM marketing rep to call you.

IBM

BY GENE KORETZ

CONSUMERS PROBABLY AREN'T DOWN FOR THE COUNT

Cast your eyes on the economic horizon, and it's not hard to spot recessionary storm clouds attracted by the increasing frugality of the U. S. consumer. Not only have retail sales been falling recently, but real consumption of both goods and services—which accounts for some two-thirds of the gross national product—has been growing at an anemic 1% annual rate since late 1989 after chugging along on a 4% growth trajectory for years.

Look closely at the recent spending behavior of consumers, however, and the outlook brightens considerably, contends economist Stephen S. Roach of Morgan Stanley & Co. Despite the well-publicized travails of the auto and housing sectors, his analysis indicates that real spending on big-ticket discretionary items such as cars, furniture, and appliances has actually expanded at nearly an 8% annual rate so far this year. Real outlays on small-ticket items such as clothing, jewelry, housewares, and leisure-related activities, on the other hand, have fallen at a 5.7% clip (chart).

This pattern is significant, says Roach, because it reflects current consumer psychology. Past downshifts in consumer demand, he notes, have usually been inspired by changes in either income growth or household wealth positions. If sluggish income growth is the [illegible] consumers tend to slow spending [illegible]-ticket items. If they're worried [illegible]ding assets, they're likely to [illegible]rtail big-ticket purchases to boost savings enough to restore their net worth.

Fears of collapsing wealth are obviously more ominous, since they are not easily cured by an economic policy shift or a pickup in business activity. "Fortunately," says Roach, "the data clearly suggest that the current consumer retreat is income-driven."

That's hardly surprising, since consumer wealth has held up remarkably well in recent years. (Household real net worth rose by a healthy 5.4% in 1989 despite regional softness in home prices.) Income growth, by contrast, has slowed appreciably. Real disposable personal income so far in 1990 is running about 2.7% above its year-earlier level, compared with a 4.25% annual rate of gain in the first half of 1989.

The good news is that the major cause of this income slowdown—a drop in manufacturing payrolls—may be on the verge of reversing. Export strength, the recent broad-based pickup in industrial production, and the apparent revival of auto sales all suggest to Roach that manufacturing activity is firming. "If income growth follows suit," he says, "real consumption could accelerate to a 3% annual pace in the months ahead."

WHY AMERICA'S MONSTER FOREIGN DEBT ISN'T DRAINING DOLLARS

Here's a puzzle. According to government statistics, the U. S. is the world's biggest debtor nation, with a net foreign debt exceeding $650 billion. Yet America took in about $1 billion more through its international investment account last year than it paid out to foreigners.

An analysis of the U. S. international investment position throws light on the paradox. Although foreign holdings of U. S. stocks, bonds, and real assets are larger than U. S. holdings of foreign assets, overseas direct investment still yields a large net inflow of profits to the U. S. And thus far, this has been enough to more than offset the net outflows of interest and dividend payments to foreign owners of U. S. securities.

The most common explanation of the positive U. S. profits flow is that the value of U. S. direct investments overseas is understated by the Commerce Dept. because it is carried at book value, and many U. S. investments made years ago have appreciated. Thus, nominally low investments generate unusually large profits. This also implies that America's status as a debtor nation is exaggerated.

Economists C. Fred Bergsten of the Institute for International Economics and Shafiqul Islam of the Council on Foreign Relations take a different tack. While not disputing the need for a revaluation of America's direct investments, they also contend that U. S. companies have been earning much larger dollar rates of return on their foreign investments than foreign companies have earned through their U. S. subsidiaries. "The reasons are not entirely clear," says Islam, "but dollar depreciation since 1985 and the relative strength of overseas economies in recent years have undoubtedly helped bolster America's foreign investment earnings."

JUICY PROFITS MAY PULL MORE CAPITAL OVERSEAS

The profitability of U. S. foreign direct investment operations is underscored by the performance of American multinational corporations, notes economist Rosanne M. Cahn of First Boston Corp. Last year, profits earned in the U. S. fell by 19%, while the multinationals' profits overseas surged by 14%. Indeed, Cahn calculates that at last count, profits of foreign subsidiaries were producing a record 43% of the total profits of U. S. corporations. And with overseas economies relatively buoyant, she expects foreign profits to continue to grow at a double-digit pace this year (denominated in local currencies), even as profits within the U. S. continue to erode.

One probable effect of this trend, says Cahn, is that U. S. companies will reorient more capital spending overseas. She notes that U. S. corporations are already planning to boost capital investment abroad by 14%, compared with 6.7% in the U. S. Not surprisingly, about 50% of the increase is slated for Europe.

DEBT WATERS KEEP RISING AROUND U.S. COMPANIES

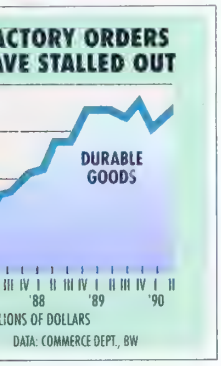
Fiscal stress shows no sign of abating. Standard & Poor's Corp. reports that corporate credit quality declined sharply in the second quarter, as it lowered ratings on the debt of 206 companies and raised the ratings of just 50. That compares with 155 downgrades and 55 upgrades in the first quarter. Although industrial companies suffered nearly three downgrades for every one upgrade last quarter, bank holding companies took the biggest hit, with 23 downgrades and only one upgrade. ■

JST 6, 1990

BY JAMES C. COOPER AND KATHLEEN MADIGAN

ROWTH HAS GONE OFF N AN EXTENDED VACATION

his summer's economic reports have put a dark cloud over the expansion. Households and businesses are increasingly worried about the future. stors are getting edgy. Policymakers seem to be ng with fingers crossed, hoping things will look hter tomorrow. For now, the outlook is not getting worse, but there's no sign it's getting any better.



Judging by the factory sector, overall demand in the economy is going nowhere. The latest report from durable goods manufacturers shows a 3.2% drop in new orders in June, to $124.7 billion. Ongoing defense cutbacks hit order books hard, but demand was down in all industry categories. The quarterly pattern shows that bookings last quarter were no higher they were in the first quarter of 1989 (chart). onsumers have already cut back, and the orders data v that businesses are doing the same. Last quarter, and for capital equipment, other than military goods, for the second consecutive quarter to the lowest l in two years. Without a pickup in spending, orders continue to languish in the second half, and manuuring won't provide much support to the economy.

ALL REET ORRIED

The economy's problems have Wall Street on tenterhooks. The stock and bond markets each have their own problems. The Dow Jones industrial average cooled its ation with 3,000 on July 23, sinking 56 points, mainly ause many quarterly earnings reports came in below ectations.

he combination of sagging demand and a relentless in labor costs is hammering corporate profits. This es at a time when earnings prospects have retaken er stage as the most important measure of corporate formance, now that the decade of deal mania is over. he bond market has its own concerns. Investors fear Federal Reserve Board Chairman Alan Greenspan is king inflation like a sheep in wolf's clothing. The lit markets are worried that the Fed has eased mone- policy despite insufficient improvement in the out- for inflation. That's partly why the rate on 30-year asury bonds has risen regardless of the Fed's latest e to push down short-term interest rates.

he stubbornness of both labor costs and the budget otiators in Washington only hardens the bond market's concerns. Without a slowdown in labor costs, hopes for any quick reduction in inflation remain dim. And while the talks on the 1991 federal budget are stalled, the red ink for 1990 is already flooding the credit markets with more new issues to place in the weeks ahead.

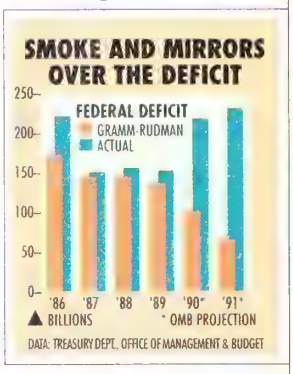
UNCLE SAM KEEPS PILING UP THE IOUs

The June budget numbers were especially disconcerting. The Treasury Dept. posted a deficit of $11.2 billion in a month when quarterly corporate tax payments usually produce a surplus. The shortfall—the largest for any June on record—compares with a surplus of $7.8 billion in June, 1989.

The biggest problem: The federal government shelled out $15.8 billion in the month to cover the losses of failed savings and loans. But for that, the June budget would have shown a surplus of $4.6 billion.

That would still be low by past standards, which indicates that the thrift crisis isn't the Treasury's only problem. Outlays other than S&L costs are still rising rapidly. In particular, the government paid $42 billion in June simply to cover interest payments on the $3.1 trillion national debt.

Meanwhile, the weak economy has slowed the pace of tax receipts. Through June, individual income taxes are up, but only by 4.8%—far below the 13.7% increase posted in the first nine months of the previous fiscal year. And corporate tax payments have dropped 9.2% below last year's pace, reflecting the falloff in profits.



The June deficit assures that the Bush Administration's projection of a monster $218 billion deficit for the 1990 fiscal year, ending on Sept. 30, will be close to the mark. And without a budget deal, the White House expects a deficit of $231 billion for fiscal 1991 (chart).

The ballooning cost of the S&L rescue accounts for $62 billion of the 1991 figure. Even excluding the bailout, that still leaves $169 billion. But the White House maintains that the economy will grow a healthy 2.9% next year—much more than most private economists forecast. Slower growth would eat into tax receipts and push the deficit even higher.

Either way, the 1991 projections mean that the deficit targets in the Gramm-Rudman balanced-budget law will have to be stretched out yet again, as they were in 1987. Despite Administration warnings that the failure to

reach a deal would force automatic budget cuts, policymakers know that cuts of the size required by Gramm-Rudman would generate a fiscal shock big enough to short-circuit the expansion.

BENEFIT COSTS ARE NAILING BUSINESS

Regardless of how the budget story turns out, Wall Street is especially queasy over the combination of poor profits and sticky inflation. Despite three quarters of below-par economic growth, increases in labor costs still show no signs of slowing. Unless they retreat, inflation isn't likely to fall below its present 4.5% annual rate, and company earnings will continue to head south.

In the year ended in the second quarter, wages plus benefits in private industry increased by 5.2%. That's the same gain as in the first quarter but a lot higher than the 4.5% clip of a year earlier (chart).

As has been the case over the past three years, benefits grew far faster than wages. The cost of employer-supplied benefits advanced by 6.9%, up from the 5.6% yearly rate of mid-1989. Rising health insurance premiums and the January hike in the Social Security tax rate caused most of the increase.

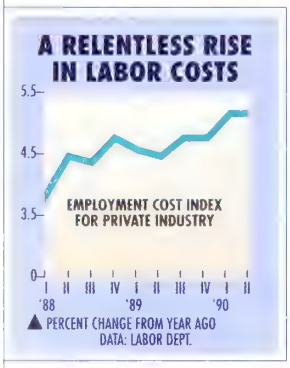
Wage growth, which seemed to have stabilized last year, is also creeping higher. In the second quarter, private-industry wages rose by 4.5%, compared with 4.1% in the second quarter of 1989. The speedup was visible in most industries and professions.

PAY HIKES DIM THE INFLATION PICTURE

The faster pace in wages, although slight, is sending out a warning on inflation. By this point in the slowdown, the lethargic economy should be holding down pay hikes. The problem now is that job growth hasn't slipped enough to free up labor markets. Also, the recent slowdown in hiring has been matched by a smaller number of workers entering the job market. The result is that the unemployment rate remains low.

Demographics argue that the pace of the work force will pick up in coming months, but until job markets loosen up a lot more, labor costs are unlikely to slow. Even in manufacturing, where 335,000 have lost their jobs since the spring of 1989, costs grew by 5.3% in the second quarter, up from 4% in the previous year.

But hard times can squash the growth in labor costs fairly quickly. That's evident in the Northeast, where the expansion has derailed. Compensation costs there rose by 5.3% over the past year. That's still pretty hefty, but it's a drop from 6.6% in the previous four quarters.



Labor costs grew faster in the South, where wages and benefits rose 5.7% in the second quarter. This is the first time in almost five years that the Northeast has not led in labor-cost growth among the regions.

A major reason for the Northeast's fall from the top is the dramatic downshift in labor costs in the financial industry. The lackluster stock market has battered commissions for stockbrokers and caused massive layoffs on Wall Street. As a result, growth in employment costs for finance-related industries slowed to 4.4% in the second quarter, from 7.8% a year earlier.

Overall wage pressure might look a bit less intense after the Commerce Dept. releases its annual revisions to gross national product on July 27. Commerce has indicated that wages and salaries for 1989 will be revised lower. And labor costs will be refigured further when the Labor Dept. revises its payroll data in September.

Those adjustments might make the pace of labor costs look a little less rapid, but they are unlikely to alter the general outlook for inflation. In fact, it may well take an economywide recession to brake labor costs to the point where inflation can decline.

THE WEEK AHEAD

PERSONAL INCOME

Monday, July 30, 10 a.m.
Personal income likely grew by 0.4% in June, according to a survey of economists compiled by MMS International, a division of McGraw-Hill Inc. Consumer spending probably rose 0.7% in June. That's suggested by the gain in new car sales for the month, plus the 0.5% rise in consumer prices. In May, income advanced 0.3%, while spending was flat.

NEW SINGLE-FAMILY HOME SALES

Tuesday, July 31, 10 a.m.
New homes probably sold at a weak 536,000 annual rate in June, not much different from their lethargic 532,000 rate of May. Without a pickup in housing demand, the building sector will remain a drag on the economy.

LEADING INDICATORS

Wednesday, Aug. 1, 8:30 a.m.
The composite index of leading indicators likely edged up by about 0.3% in June, after rising 0.8% in May.

CONSTRUCTION SPENDING

Wednesday, Aug. 1, 10 a.m.
Construction spending likely fell 0.5% in June, as indicated by the drop in housing starts. In May, spending declined 0.4%.

NAPM SURVEY

Wednesday, Aug. 1, 10 a.m.
The National Association of Purchasing Management's index of business activity was probably little changed in July from its 51.1% level in June. The factory sector is recovering, but at a slow pace.

FACTORY ORDERS

Thursday, Aug. 2, 10 a.m.
Factory orders likely fell by about 2% in June, after a 2.1% jump in May. Durable goods orders dropped 3.2% in June.

EMPLOYMENT

Friday, Aug. 3, 8:30 a.m.
The MMS consensus calls for a 36,000 rise in nonfarm payrolls in July, following a 40,000 gain in June. Excluding census workers, job growth was probably a healthier, but still modest, 124,000 workers. The unemployment rate is expected to rise to 5.3% in July from 5.2% in June.

Volvo Has Built A Reputation For Surviving Accidents. Subaru Has Built A Reputation For Avoiding Them.

The Volvo 240 has done a fine job f surviving accidents. And we, at ubaru, have always admired that.

So we gave the new Subaru egacy unibody construction like ne Volvo 240.

But at Subaru, we think there's omething even better than surviving ccidents. And that's not getting into hem in the first place.

So unlike the 240, the Subaru egacy offers an optional anti-lock raking system (ABS). A feature that umps your brakes automatically for naximum maneuverability and gives ou much greater steering control luring heavy braking.

Unlike the 240, the Subaru Legacy is available with full-time four wheel drive. A more civilized form of four wheel drive giving you greater traction on smooth high speed highways as well as on washboard dirt roads.

And unlike most cars in the world, the Subaru Legacy comes with both four wheel disc brakes and independent suspension.

At Subaru, we know that even cars not involved in accidents can eventually come apart. So every Subaru is put together to stay together through conditions which drive other cars into the ground. Of course, we can't guarantee how long every one of our cars will last. But we do know 93% of all Subaru cars registered in America since 1979 are still on the road.*

And the new Subaru Legacy may even surpass that record for durability. A Subaru Legacy has broken the FIA World Speed/Endurance record by running 19 days at an average speed of 138.8 mph for more than 62,000 miles.**

So you see, it wasn't just accidents the Subaru Legacy was designed to avoid. But junk yards as well.

*R.L. Polk & Co. Statistics, July 1, 1988. **Validated by the Federation Internationale De L'Automobile

Subaru Legacy™

We Built Our Reputation By Building A Better Car.

COMPUTERS

'EUROPE AIN'T NO BONANZA ANYMORE'

A SOFTER COMPUTER MARKET MEANS WEAK EARNINGS FOR U.S. SUPPLIERS

C

ess to vintage Bordeaux. For the past

set to be. In recent quarters, a

Hew

and Tandem—have reported weaker earnings or revenues and blamed them partly on a softer Europe.

Digital has been hardest hit. On July 25, the company posted dismal fiscal 1990 results: Revenues came in at $12.9 billion, barely up from 1989's $12.7 billion. Net income fared even worse. A $750 million restructuring charge left DEC with just $74 million in profits for the year, down from $1 billion in fiscal 1989. The culprit: weakening European sales. DEC cited sliding sales in key British, West German, French, and Italian markets and said its international revenues tumbled 2% in the June quarter, to $1.9 billion. For the year, international revenues rose a meager 4%, to $7.2 billion, compared with a 22.5% hike in 1989. "Europe ain't no bonanza anymore," says Bruno D'Avanzo, Digital's European marketing vice-president.

That's not to say that the market is dead. International Data Corp. figures that total hardware, software, and services sales in Europe this year will rise by 13%, to $131.4 billion (chart). That's off last year's 15% pace, which in turn was behind 1988's 16% spurt, but ahead of U.S. growth of 10%.

SPENDING SPREE. Yet evidence of a broad slowdown is building, and the reasons behind it are fairly simple. For one thing, economic conditions in Great Britain have cut sharply into capital spending. Throughout Europe, customers have pared back computer budgets, while they absorb the machines they bought during a five-year spending spree and evaluate new technologies. "Top management wants justification now for new equipment in terms of how it improves customer service or marketing," says Donald A. Feldman, informa-

systems director BP Oil Europe. t has slowed wth in his sys- s budget to less 1 10% this year, n more than 15% ough the late Os.

hat kind of re- aint is a major blem for U. S. nframe and mini- nputer makers. nearly three rs, the shift to smaller computers has ased a steep slide in their U. S. reve- growth. Heady growth rates on the tinent have gone far to cushion the (table).

COUNTING. Now, as demand softens, S. makers of minicomputers and nframes are slashing prices. Some opean executives say discounts on nframes are as much as 30% deeper 1 just two years ago. IBM, they say, thrown away the pricing book alto- her, especially when customers sign o buy an assortment of its products. M sees that deeper discounting is a ity," says John C. Dean of Salomon Brothers Inc. Ironically, discounting may also be stimulating mainframe sales: IDC predicts the market will grow by a surprisingly strong 7% this year and 4% in 1991. But the sales-building tool is sheer hell on margins. "Companies don't get bailed out by strong, highly profitable Europe any more," says analyst John C. Levinson of Goldman, Sachs & Co.

Consider Hewlett-Packard's record. Its profits leaped ahead while Europe, which accounts for about 35% of its sales, smartly outpaced the U. S. But in the six months ended Apr. 30, European sales growth slowed to about 13%—well off the 24% pace a year earlier. Partly as a result, profits in the period fell 9%, to $359 million, despite strong cost controls. "When sales slow that much, it shows on the bottom line," says an HP headquarters manager in Geneva.

European computer makers, with less geographical spread than their bigger American rivals, have been even more vulnerable. At Italy's Olivetti, where profits have been slipping for four years, sales inched up only 7% in the first five months of this year. France's Groupe Bull is expected soon to report another loss for the first six months of 1990 after dipping $41.8 million in the red last year and showing meager sales growth of 4%.

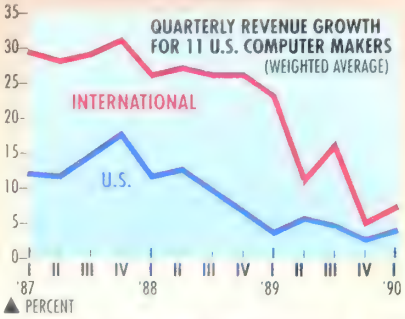
Both American and European companies may soon be dealing with a whole new set of problems: increased competition from Japan. European computer makers already resell mainframes made by NEC, Hitachi, and Fujitsu. Now, Fu-

U.S. COMPUTER MAKERS LOVE THOSE EUROPEAN SALES...

Company	Revenue Billions	Percentage of sales U. S.	Europe
IBM	$62.7	41.0%	37.0%
DEC	12.7	46.0	40.0
HEWLETT-PACKARD	11.9	46.7	34.7
APPLE	5.3	64.4	22.9
COMPAQ	2.9	54.6	41.8
SUN	1.8	57.9	24.2
TANDEM	1.6	50.1	32.5

DATA: SALOMON BROTHERS INC., COMPANY REPORTS

...BUT THE SLUMP IS SPREADING OVERSEAS



DATA: COMPANY REPORTS, GOLDMAN SACHS ESTIMATES

HOT SOFTWARE: THE BREAK AMERICAN PC MAKERS NEEDED

Perhaps personal-computer makers should send a case of champagne to their favorite software use. After a year of stagnant sales, mand for PCs in the U. S. is slowly viving—largely thanks to a slew of t new programs.

Domestic sales of new machines by mputer retailers rose by 9% in April d 12% in May, compared with those onths a year ago, says market rearcher Storeboard/Computer Intellince (chart). That's markedly better an results for the 12 months ended in arch, when sales grew by just 4%.

No one believes the U. S. PC market ll return to the 50% growth rates of e mid-1980s. But analysts, computer alers, and computer makers are upat: Many now expect demand to end by 10% to 15% through 1991.

FTY PROGRAMS. PC sales are riding a ave of new programs from the indus- y's biggest software developers. The w spreadsheets, data bases, and ord processing packages are faster, ore colorful, and easier to use than eir predecessors. They also require ore sophisticated machines.

Take Microsoft Corp.'s Windows 3.0, e most important of the new soft- are programs. Windows converts a 's screen into an interactive array of colorful pictures and lets customers shift from one job to another at the touch of a button. But Windows runs only on powerful PCs with plenty of memory. That means customers who want to use Windows have to junk their older boxes.

At such companies as Du Pont and Eastman Kodak, that's just what's happening. Microsoft says it will sell 2 million copies of Windows this year, and 21% of Windows customers plan to upgrade with new machines, according to an International Data Corp. survey. Managers had been itching to trade up anyway, and Windows provides "a good excuse" to buy new PCs, says one customer. At Travelers Insurance Co., for instance, all 500 corporate finance employees are upgrading to new PCs.

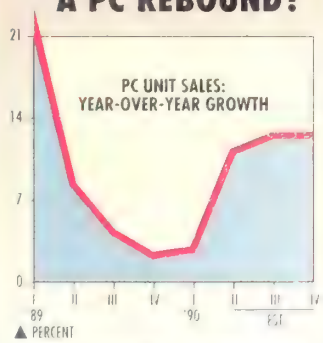
Meanwhile, the cost of new PC power is dropping. Short supplies of microprocessors made high-end PCs expensive last winter. Now, Intel Corp. is boosting production, and street prices of 80386 PCs from IBM and Compaq Computer Corp. have dropped 10% to 15%, says consultant Wohl Associates.

Dealers expect prices to go even lower as cheap '386-based clones appear. "We're going to start seeing a bloodbath," says Mark Cuban, president of MicroSolutions Inc., a Dallas reseller. Already, defense contractor FMC Corp. has found that buying a new PC is just 15% more expensive than upgrading an old slowpoke.

That means the PC rebound will probably last—to the delight of battle-weary PC makers. "The U. S. is still a very big, strong market," says Compaq Chief Executive Joseph R. Canion. Certainly, there's room for growth: Just 30% of American white-collar workers use PCs, says brokerage Cowen & Co. Better software and cheaper machines may be just the ticket for that other 70%.

By Keith H. Hammonds in Boston, with bureau reports

A PC REBOUND?



DATA: STOREBOARD/COMPUTER INTELLIGENCE, COWEN & CO.

jitsu is negotiating the purchase of a majority stake in ICL, Britain's flagship computer company, according to STC PLC, ICL's parent company.

Insulated from all this, at least for the moment, are PC and workstation makers. Compaq in personal computers, Sequent in powerful multiprocessor systems, and Silicon Graphics in workstations are still cooking at growth rates of 60% or more. In fact, analysts figure the European PC market may grow as much as 25% this year and 22% in 1991. In the U. S., by contrast, PC makers expect to see 10% to 15% growth this year (box).

Fueling that growth is a trend that started in the U. S. about two years ago: cheap networks of standard PCs and workstations replacing proprietary minicomputers and mainframes. The portion of Peugeot's budget going for mainframes, for instance, is sliding from 50% to less than 30% this year. Taking up the slack at the French auto maker are new PCs and workstations for design engineers and factories.

But there are signs that PC makers should be bracing for a shock, too. While Europe had installed only half the U. S. level of PCs by 1986, the number is now 85%, says London researcher Inteco. And competition for market share is quickening the pace of price cuts. In 1991, high-end machines from second-tier companies such as Tandon Corp. and AST Research Inc. will be half the amount charged by Compaq and IBM, says Inteco analyst Rana Mainee. Those larger companies will have to respond with discounts of their own. "Margins have been tightening for 18 months," and they'll only get worse, Mainee says.

Of all the big computer makers, the new European reality is perhaps most sobering for Digital. No sooner had its payroll on the Continent reached a peak of 28,000 last April than it did an about-face, initiating staff cuts in May. DEC says fewer than 1,000 jobs will go. Marketing chief D'Avanzo hopes to get volume moving again in part by retraining 4,000 Unix specialists and targeting small and midsize businesses—now mainly the turf of European companies.

Eventually, the pickup in cross-border business spurred by the single market of 1992 may help fuel demand for DEC and other big computer companies. And by 1993, Eastern Europe could be ready to start buying. But don't expect big improvements for a while. "Growth will come again," says D'Avanzo, "but the margins will never be the same." That's [illegible]ing that all computer makers in [illegible] now will be getting used to.

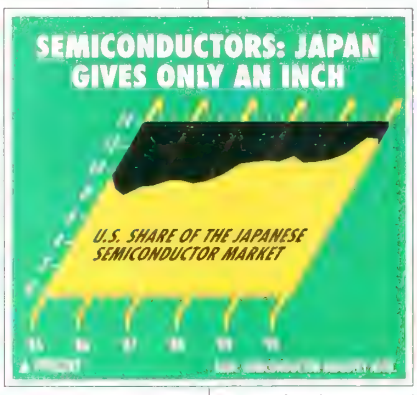
[illegible] Jonathan B. Levine in Paris, with [illegible]ns in Boston and Deidre A. [illegible] York and bureau reports

Commentary/by Paul Magnusson

TO SELL MORE CHIPS IN JAPAN, LET'S NOT PULL OUR PUNCHES—OR PACT

With less than a year left in a five-year agreement on semiconductor trade with Japan, the Bush Administration is leaning strongly against renewal of the pact, at least in its current form. But before the White House calls the whole thing off, a close look would suggest that it's too early to phase out the old pact. What's needed is a new, stronger agreement to maintain the momentum U. S. chipmakers have built in Japan.

The semiconductor agreement was born of frustration back in 1986. Japanese manufacturers were flooding the U. S. market with below-cost memory chips at the same time as U. S. chipmakers were hitting a brick wall in Japan. The two-part deal called for an end to chip dumping and a promise by Tokyo to double the U. S. share of the Japanese semiconductor market, to "slightly above 20%."



The first half of the deal was a success—sort of. The Japanese limited memory-chip exports to the U. S., causing a surge in price that hit computer makers and other chip users hard. But it also gave the U. S. semiconductor industry some breathing room.

MITI MUSCLE. The bad news is that Japanese purchases of U. S. chips have lagged too far behind the 20% goal (chart). Only lately has Japan's Ministry of International Trade & Industry persuaded big chip users such as Sony Corp. to buy American.

So what have we learned from this experiment in managing high-tech trade? The first lesson is that while MITI's clout may be waning, it can still bring results. As the chip agreement nears expiration, MITI is finally beginning to put the squeeze on Japanese firms to buy U. S. chips. "If it continues, the [Japanese] pattern of business practices will change, and it will be a self-sustaining process," says Intel President Andrew S. Grove.

A second lesson is that arithmetic is a universal language. The Bush Administration disdains as "managed trade" numerical goals such as the promise of a 20% market share. The problem is that the sort of agreements favored by free-trade advocates lack any yardsticks for measuring success. Easily measured goals are essential.

That leads to lesson No. 3: the need for open covenants, openly arrived at. Tokyo's promise of a 20% market share was contained in a secret "side letter" to the main accord. So Japanese negotiators at first felt free to deny it existed. Later, they denied it promised a 20% market share. Lately, Japanese diplomats have been insisting that an agreement with a single agency can't commit the entire government. All this could have been avoided if the deal had been aboveboard from the beginning.

A final lesson is that trade policy is too important to be left to the trade negotiators. While President Reagan enjoyed his close "Ron and Yasu" relationship with former Japanese Prime Minister Yasuhiro Nakasone, he avoided using it to put trade pressure on the Japanese. Instead, Reagan levied a penalty of $300 million in punitive tariffs on Japanese electronic goods, a move that ended dumping but had no effect on opening the Japanese market.

By contrast, President Bush has been freely ruffling feathers in both Europe and Japan. After Bush specifically mentioned semiconductors in talks with Prime Minister Toshiki Kaifu, Japanese purchases of U. S. chips increased. U. S. Trade Representative Carla A. Hills has complained that a fair U. S. share of a truly free market in Japan would be "double or triple" the 20% promised in the agreement. But a new, higher percentage could serve as a floor, not a ceiling. Eventually, if the U. S. chipmakers' share of the Japanese market improves significantly, the pact could be phased out. But now is not the time.

CHOICE OF A JUDGE WITH NO KNOWN VIEWS ON ABORTION ALLOWS BUSH TO DUCK THE ISSUE FOR NOW

AVID SOUTER: HE GRANITE STATE ENIGMA

h this shy conservative, Bush offers no target to ideological foes

n the end, George Bush predictably plays it down the middle. In choosing little-known New Hampshire judge David H. Souter on July 23 as his nominee to the U.S. Supreme rt, the Grand Compromiser gambled a conservative without footprints ld win easy Senate confirmation.

hat may be smart politics. Bush's ce to replace legendary liberal Wil- J. Brennan Jr. might not satisfy servative zealots. And liberals may mount a nasty fight over abortion, rights, and freedom of expression. barring startling revelations in his kground check, the early betting is Souter, 50, will make it through the firmation process with little trouble. ush didn't have much room to wig- With his approval rating declining with key decisions on civil rights slation and the budget looming, Bush no stomach for a replay of 1987's ble over Robert H. Bork. Congressal elections are a mere three months y, and the GOP is split on abortion, so h's choice of a judge with no known ion on the controversy allows him to sse the question. "With this nomina-, the President took the abortion is- out of the 1990 campaign," says Relican consultant Eddie Mahe Jr.

A shy history buff who enjoys hiking in the White Mountains of the Granite State, Souter lives a near-monastic life on a farm 15 miles outside Concord. "I'm not sure I've ever seen him at a cocktail party, but then, this is a state of recluses," says James E. Duggan, the state's chief appellate public defender. Souter, who earned undergraduate and law degrees from Harvard, is "very, very intellectual," says Concord lawyer Malcolm McLane, who interviewed Souter for his Rhodes scholarship. After working his way up through the office, Souter served as New Hampshire's attorney general and then on the state's trial and appellate courts. This spring, Bush named Souter to the U.S. Court of Appeals in Boston, but Souter has sat only one day on that bench.

In choosing a Yankee conservative, Bush may be saying as much about his own cautious nature as about Souter's views on the Constitution. The judge is backed by White House Chief of Staff John H. Sununu, the Administration's link to conservatives, but pro-choice Senator Warren Rudman (R-N. H.) is actually Souter's political rabbi. Moreover, Bush picked the moderate Souter over U.S. District Judge Edith H. Jones of Houston, who has riled civil rights activists with her strong law-and-order rulings.

> 'I'm not sure I've ever seen him at a cocktail party, but then, this is a state of recluses'

A review of Souter's opinions suggests a measured conservatism. "He's not like Bork," says Duggan. "He's not going to rewrite the Constitution the way the framers intended it to be."

Two New Hampshire Supreme Court cases suggest his approach to sensitive matters. He joined the majority in a 1987 advisory opinion to the state legislature upholding a ban on homosexuals adopting children or becoming foster parents. Homosexuals, however, could not be barred from operating child-care agencies.

'MODERATION.' In a 1986 medical malpractice case, Souter found with the majority that a woman who had given birth to a deformed child could sue her doctor for failing to inform her of the option to abort. But Souter wrote a separate opinion in which he said a doctor morally opposed to abortion wasn't obligated to perform tests on the fetus or give abortion-related advice. "There's certainly evidence in cases that I've looked at that suggests moderation," says Yale Law School professor Paul Gewirtz.

Although key senators indicate they'll heed Bush's wishes and avoid making abortion a litmus test, the strong feelings surrounding the issue could find an outlet in the hearing room. But those pressing Souter for an answer could be disappointed. Friends of the judge say they've never heard him discuss the issue, but suggest his respect for history and judicial precedent means he will not be the predicted pivotal vote to overturn Roe. "I think the right wing may be sadly mistaken," says New Hampshire Bar Assn. President John T. Broderick.

But on other issues, Souter could tip the high court further to the right. With key cases on corporate liability, civil rights, and sex discrimination already on the October docket, Bush may get to make his mark on the judiciary without paying a high political price.

By Tim Smart, with Paula Dwyer, in Washington

AP WIDE WORLD

STRATEGIES

McDONALD'S ISN'T LOOKING QUITE SO JUICY ANYMORE

High menu prices and hustling rivals bite into sales and earnings gains

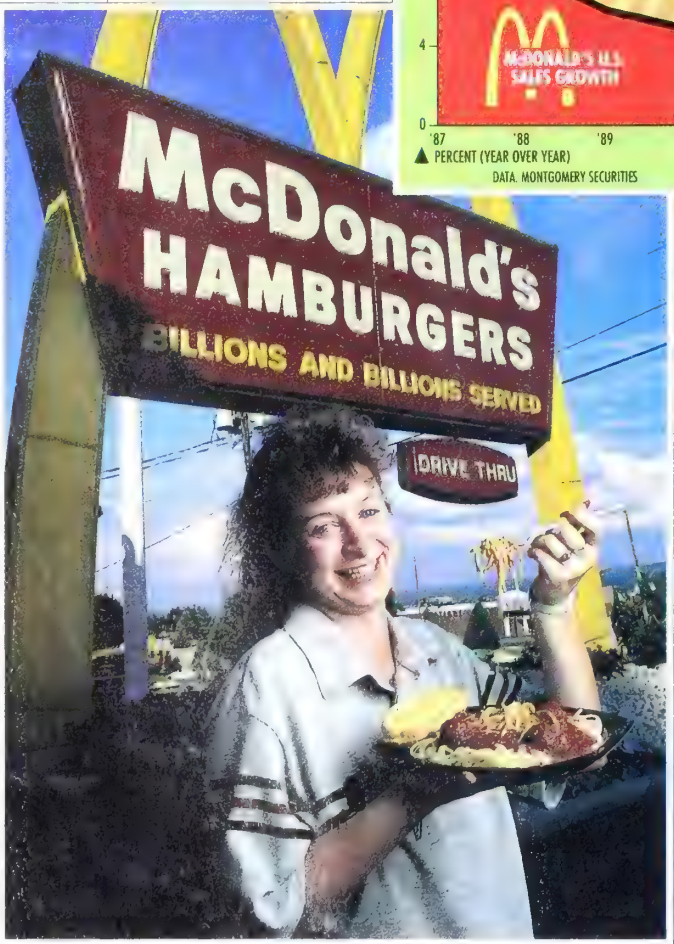
McDonald's Corp. may want to rethink its newest advertising jingle: "Food, folks, and fun." While food and folks are still plentiful at the Golden Arches, fun is likely to be in short supply for investors for some time to come. News on July 20 of sluggish second-quarter U. S. earnings sent the stock tumbling 4½ points in two days, biting off 12% in market value (page 64). More troubling, the latest financial results reveal that the once-invincible fast-food champ is losing some of its punch.

After nearly three decades of double-digit gains, domestic sales growth began to slow a few years ago. That trend is growing more pronounced (chart). While the company's international prospects are glowing, it will take several years before foreign operations fire up McDonald's profits. Meantime, strong earnings increases will be hard to come by without resorting to revenues from restaurant sales and the like. Excluding such gains, second-quarter pretax income inched up just 2%, says Leslie Steppel, an analyst with Prudential-Bache Securities Inc.

CORNERSTONE. Trouble is, domestic sales are supposed to be subsidizing the company's aggressive investment overseas, where it plans to open about 300 outlets this year. Consequently, return on assets slid from 20.3% in 1985 to 17.3% last year even as McDonald's borrowed heavily, pushing the debt-to-capital ratio from 40% six years ago to 53% in 1989. With U. S. restaurants still contributing 68% of McDonald's $1.5 billion in total operating profits on $17.3 billion in sales last year, Montgomery Securities analyst Michael G. Mueller figures operations back home will remain the cornerstone of the global expansion.

U. S. sales are still growing, but they have lost their sizzle. More sophisticated consumer tastes and revved-up competition are bedeviling McDonald's at a time when new store locations are hard to find. Rivals such as Taco Bell and Hardee's are pouring it on. And with new restaurants dishing up everything from takeout curry to sushi, Americans have more fast-food options.

Some critics charge that McDonald's has made matters worse by hiking menu prices faster than inflation in an effort to boost margins. That cuts into the chain's value-driven appeal. After adjusting for menu-price increases, U. S. outlets open for at least a year have seen flat or declining sales since the second quarter of 1988, figures Mueller. Small wonder, then, that chains such as Chili's Inc. and Shoney's Inc. are growing two to three times as fast as the fast-food giant. They offer pleasant surroundings and better food—for only slightly higher prices.



TO WOO THE DINNER CROWD, McDONALD'S IS TESTING SPAGHETTI

McDonald's has held margins at over 17% for the past five years. Would the company settle for thinner profits to spur growth? "That's a real possibility," concedes Chief Financial Officer Jack M. Greenberg. It may already have begun. As a summer promotion, McDonald's is hawking Happy Meals and a toy giveaway for $1.99, and might make that the everyday price for the kiddie meal. That's down 20% from the current $2.49 in the average McDonald's outlet.

BRAN MUFFINS. McDonald's has also been moving to address growing nutrition concerns. After long resistance, it has followed Burger King Corp. and Hardee's by switching from a blend with beef tallow to 100% vegetable oil for cooking fries and hash browns. This spring, it replaced ice cream with lowfat yogurt, introduced lowfat shakes, and added cereal and bran muffins for breakfast.

But evening business, now only about 25% of sales, offers the best chance to spur domestic growth. In addition to pizza, now in about 200 outlets, the company is testing pasta dishes such as spaghetti and fettuccine, plus fish-and-chips in a few stores. "Pizza has the potential to be the centerpiece of a whole dinner strategy," says Greenberg.

But some franchisees have reservations. Terence Solon, owner of three McDonald's outlets and former president of the McDonald's Owners of Chicagoland and Northern Indiana, favors limited-time promotions such as Cheddar Melts or McRib sandwiches. "You just don't want to sustain a heavier menu on an ongoing basis," he says, adding that items such as pizza slow service and boost costs.

Even if it works eventually, dinnertime isn't going to resuscitate McDonald's U. S. sales any time soon. Until the company works out the kinks in preparing pizza, it won't roll beyond the first few hundred restaurants. For now, McDonald's and the folks who own its stock will have to accept the fact that the fast-food business isn't much fun.

By Lois Therrien in Chicago

D ART WILLIAMS AKE A WALK ON THE WILD SIDE?

e insurance mogul steps down in the face of an FBI inquiry

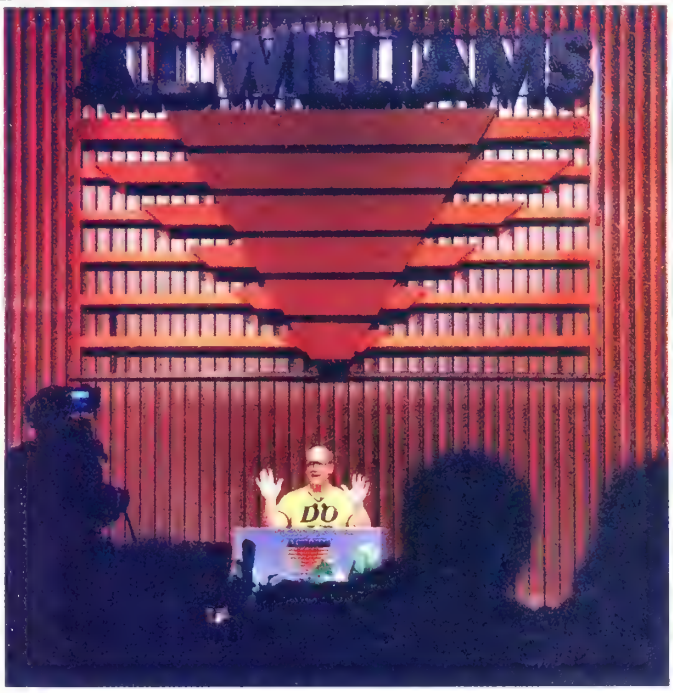
rt Williams, the former high school football coach and *bête noire* of the life insurance indus- just couldn't get the words out. Mid- through a speech to workers at . Williams Corp.'s Georgia head- ters on July 20, the company's der, fighting tears, was unable to n. His wife had to finish ling the stunning an- ncement that Williams taking a leave of absence ort out charges being in- igated by the U. S. Attor- in Jacksonville, Fla. Wil- s didn't spell it out, but NESS WEEK has learned of gations that he master- ded a scheme to drive a ner employee's insurance pany out of business by ling it with hundreds of us life policies.

ECTIONS? News of Wil- s' abrupt exit sent shock- es through the ranks of 000 A. L. Williams agents. s guy is a god," says one. the biggest blow may be in New York, where Pri- ca Chairman Sanford I. l waits to see if his com- y's investment in A. L. iams will suffer serious age. Weill says he and iams "agreed together it was the right thing for him to a temporary leave of absence." It's sky move: Williams demands fealty n his agents, and his departure could k mass defections.

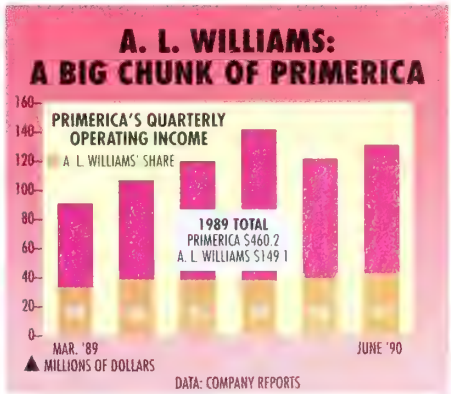
eill may have had little choice. Peo- close to him say he was increasingly erned by Williams' take-no-prisoners agement style. Williams' reaction is nown. He left on vacation after his ouncement and couldn't be reached comment. For its part, Primerica ged to cooperate in the Florida e and keep shareholders informed.

he stakes are high for Primerica. In first half of this year, A. L. Williams unted for 33% of Primerica's $252.9 ion in operating profits (chart). In- l, even though Primerica reported her-than-expected quarterly earnings uly 19, news of the Florida probe led sharp sell-off of Primerica shares. rimerica first acquired a majority e in A. L. Williams in 1988 through a complicated stock swap. The attraction was Williams' aggressive sales force, which got new customers to switch from whole life policies to lower-cost term insurance.

The pitch worked: A. L. Williams' insurance in force shot from $4.1 billion in 1980 to $301 billion by the decade's end.



WILLIAMS: HIS DEPARTURE COULD HURT PARENT COMPANY PRIMERICA



Primerica paid $470 million in stock last Nov. 1 to buy out the 30% of A. L. Williams stock still held by the public. That implied a value for the whole company of no less than $1.57 billion.

After the buyout, Art Williams' official title was reduced to sales consultant. But several former company officials say he continued to run the show. A Florida grand jury is set to meet on Aug. 8 and consider whether his aggressive management drifted into illegality.

The U. S. attorney's office in Jacksonville wouldn't comment, but insurance industry sources say the FBI began its probe shortly after Williams issued a fiery denunciation of Randy Stelk, president of Amerishare Investors Inc. of Jacksonville. It came during a January, 1990, speech to more than 200 members of A. L. Williams' top sales staff, who had gathered in Kansas City, Mo.

Stelk was once a top sales executive for A. L. Williams, but his mentor fired him in 1987. The two have been embroiled in litigation since 1988 when Stelk started Amerishare and began selling a competing insurance policy. Ted W. Delong of Sacramento, a former national sales director for A. L. Williams, says he heard a tape of Williams' Kansas City speech, in which, Delong says, Williams vowed to destroy Stelk's company.

'HIT SQUADS.' Delong claims S. Hubert Humphrey Jr., a senior A. L. Williams executive in Atlanta, unrelated to the Minnesota political family, earlier had detailed for him the means of destruction: "Hit squads" of A. L. Williams disciples would sign up as Amerishare agents and write fictitious life policies. Amerishare would immediately pay the agents generous commissions, leaving the company stuck when the policies quickly lapsed. Delong says he was fired after refusing to go along with the scheme. Humphrey denies all of Delong's allegations. "He was never invited to be involved in any so-called scheme," says Humphrey. "He missed the party—if there was one." Stelk isn't talking, but industry sources say he thinks his losses so far total about $200,000.

Steven K. Brown, an 11-year FBI veteran who's now a private investigator in Jacksonsville, says he was called in by Amerishare early this year. Brown, whose FBI specialty was white-collar crime, found what he says "appeared to be substantive criminal violations" by A. L. Williams employees. Brown says he turned over his findings to the FBI.

Weill, for his part, was scheduled to go to Atlanta on July 26 to assure Williams agents that, in his words, "Primerica is behind them." Yet, he must be wondering if the Williams team will keep scoring with their coach out of the game.

By Chuck Hawkins in Atlanta, with Jon Friedman in New York and bureau reports

LABOR

WORKERS AT UPS EARN 30% MORE THAN AT NONUNION RIVALS, BUT THEY STILL MAY WALK OUT

A GAME OF CHICKEN BETWEEN THE TEAMSTERS AND UPS

A leadership race and thin profits have both sides driving a hard bargain

United Parcel Service long has enjoyed tranquil relations with its unionized workers. Many of the 140,000 Teamsters at the company complain about its rigorous, minutely timed work schedules. But top Teamsters officials usually have settled contracts amicably by winning hefty wages—up to 30% more than those paid at nonunionized competitor Federal Express Corp. The union has never called a national strike, not even in 1987, when members rejected the company's terms by 53%.

But there are signs of trouble. UPS officials fear a walkout when the Teamsters' contract expires on July 31. The reason: Teamsters President William J. McCarthy is under pressure to drive a harder bargain. A militant dissident named Ron Carey is running against him for the union's top office, and since Carey hails from the largest UPS local, this contract has become a political battleg

DISCONTENT. What's more, the 71-year-old McCarthy has personally taken charge of the UPS barga[illegible] step. And while even dissidents from the Teamsters for a Democratic Union doubt that most UPS workers really want to strike, McCarthy has set the stage for a walkout. He capriciously has recommended turning down UPS's final offer, fanning rank-and-file discontent. Says one top Teamsters official who has participated in the bargaining: "If the contract is turned down by one vote, Billy is capable of calling a strike."

The two sides actually agreed long before the deadline to try for an early settlement. But profit margins at the $12.4 billion company slumped to 5.6% last year from 8% in 1987, largely because of a big push overseas and increased competition from Federal Express overnight deliveries. As a result, UPS tried to hold the line. Management said that its final offer would be a mere 11% increase over three years: a $1.50-an-hour wage hike plus a benefit increase of 75¢ an hour. On June 26, McCarthy called together several hundred local leaders and told them he would recommend against the deal.

Almost immediately, UPS changed its tune. Fearing customers would flee if they smelled a strike, UPS returned to the table and upped its offer by more than 25%. It added a cost-of-living adjustment worth about 18¢ an hour over three years, a further 30¢ an hour in benefits, and onetime bonus payments in the first year (table).

MONEY SQUEEZE. The proposal is weighted toward part-timers, who make up about 45% of the work force and earn much less than full-timers. Including the bonuses, part-time workers probably would come out well ahead of inflation, while full-timers would wind up even. But, says a top Teamsters official, "that's not really a bad offer, given what other unionized workers are getting these days." Nevertheless, McCarthy still didn't buy it. Even though his final wage demand was only 15¢ an hour higher, he called a membership vote and recommended rejecting the United Parcel Service offer. McCarthy didn't respond to requests for an interview.

With ballots due by the end of July, both sides say the vote is a toss-up. UPS officials have launched a hard-sell campaign, sending letters to warn that a "No" vote will produce a strike. But many drivers feel UPS is trying to squeeze money out of the union to fund its expansion overseas. Says a 10-year veteran driver from Kansas City, Kan.: "Their spending across the water is going to come back to haunt them."

Indeed, the standoff already is making UPS customers nervous. UPS would shut down if its 62,000 Teamsters drivers walked out. The U.S. Postal Service says its volume jumped in mid-July as UPS customers began to book business elsewhere in anticipation of a walkout. Michael S. Coughlin, the Deputy Postmaster General, says the service plans to ration parcels it would receive in a UPS walkout. "We can't handle 10 million additional parcels overnight," he says.

With so much at stake, UPS may return to the table before the Teamsters walk out. Jim Kelly, the company's chief negotiator, insists that what's on the table is "our best and final offer." But he also says he will sit down again if the offer is rejected. The real wild card seems to be McCarthy. Given the politics at stake, there's no telling which way he'll go.

By Aaron Bernstein in New York and Todd Vogel in Connecticut, with bureau reports

WHAT UPS IS OFFERING TEAMSTERS

	Hourly base compensation	Proposed increases*		Total	Percent change
		Wages	Benefits**		
FULL-TIMERS	$20	$1.50 plus $1,000 bonus	$1.23	$2.73	13.6%
PART-TIMERS	$9	$1.50 plus $500 bonus		$1.50	16.6%

*On an hourly basis over three years **Not including vacations and holidays

DATA TEAMSTERS FOR A DEMOCRATIC UNION

OW GRUMMAN IS TRYING O KEEP ITS NOSE UP

fiery leader has left under a cloud, and sales are getting tougher

Hard-nosed. Combative. The description fits both John O'Brien and Grumman Corp., the compa- he ran until July 19. The former irman of the premier U. S. naval air- ft maker often bragged that it was Grumman-made F-14 "Tomcat" nters that shot down two Libyan jets 1986. And last year, he lobbied like a cat to save the 21-year-old aircraft gram from Pentagon budget-cutters. Now, O'Brien is gone, having quit umman with an abruptness that sug- ts he may become enmeshed in the ntagon procurement scandal. The task flying the Bethpage (N. Y.) company ough the end of the cold war has en to a very dif- ent sort: Renso L. orali, a low-key, iny engineer who fers turning a ewdriver to twist- the arms of poli- ans. Although umman's board is rching for a per- nent replacement, orali seems in- t on sticking und. Says Capor- who as vice-chair- n has directed porate technology e 1988: "I'm stay- until someone s me to leave." What he lacks in azz, Caporali, 56, re than makes up in intellectual dlepower. With a PhD in aeronautical ineering from Princeton University, s considered an ace engineer. "Much the F-14 was his work, and it's still of the best aircraft around," says ert J. Sanator, president of Geotel , an electronics outfit that evaluated e of Caporali's engineering work for Pentagon.

NGER ZONE. Now, though, it's Capora- largely untested leadership skills t will be crucial (table). Grumman es a tough struggle to keep orders ving for its supersonic F-14 program, resenting about 18%, or $630 million, he company's $3.5 billion in 1989 rev- es. An order for 37 new fighters—at ut $40 million a pop—ends in 1992, le Grumman's A-6 Intruder attack jet will be phased out next year. And newer programs under development such as the Joint STARS radar system, worth a potential $10 billion in revenues, are endangered, too.

More immediately, Caporali has to control the damage to Grumman's image. The company says O'Brien resigned for personal reasons. But his name has been linked to a federal grand jury investigation into possible influence peddling by James Kane, the head of a Long Island (N. Y.) defense subcontractor, who died in February. According to a source inside the company, O'Brien may have taken loans from Kane, a possible violation of federal antikickback laws. O'Brien isn't talking, nor are prosecutors at the U. S. Attorney's office in Brooklyn, N. Y. But Caporali admits that the company could be headed for a spell of embarrassing publicity.

It wouldn't be the first time. In May, a Grumman shipping manager, William Capaldo, pleaded guilty to taking a $75,000 kickback from Kane. The case didn't involve the company. Two months earlier, Grumman itself pleaded guilty to illegally obtaining classifed Pentagon budget documents. Grumman isn't the only defense company to run afoul of the feds, but "these things," notes Caporali, "don't do any of us any good."

Especially now. Grumman is trying to persuade Congress to upgrade the Navy's older F-14s rather than approve the $60 billion Advanced Tactical Fighter (ATF) program under development by two competing teams headed by Northrop and Lockheed. Caporali argues that the upgraded F-14D fighter is more than adequate to meet the Navy's needs. Grumman's rivals don't see it that way. "You wouldn't upgrade a 1950 Chevy and expect a 1990 Mazda," says one ATF lobbyist. Despite that objection, the Pentagon has pushed back introduction of the ATF, and Congress is considering giving Grumman $1.2 billion in next year's defense budget to upgrade older F-14s.

SKY EYE. Caporali will have a tougher time selling Grumman's Joint STARS radar system. The airplane-mounted system was originally designed to detect and track enemy formations while guiding missiles and aircraft toward the bad guys. Caporali is now trying to sell the gadget as an eye in the sky that could, say, verify that the Soviets are keeping their disarmament promises. Natalie Goldring, a senior analyst with the Defense Budget Project, a Washington think tank, considers his chances so-so. "The Soviets will continue to view it as a battlefield system, and so will some in Congress," she says.

Cost-cutting is another priority. Since 1987, Grumman has eliminated 6,000 jobs, or 18% of the work force. Caporali says the worst is over, but he admits that more layoffs are likely later this year. The belt-tightening is paying off: Grumman's 1990 earnings should improve by 5%, to $71 million, on $3.65 billion in sales.

That's far from the $110 million Grumman earned in 1983, at the height of the Reagan defense buildup. And with peace breaking out all over, the bravado that once permeated Grumman seems to be as scarce as fresh money for guns.

By Brian Bremner in New York

CAPORALI: QUIET AND BRAINY

CAPORALI'S CHALLENGES

SAVE THE F-14

Orders for new fighters end in 1992. Grumman is lobbying hard to extend it and retrofit older F-14s

SALVAGE JOINT STARS

This high-tech battle radar system—a $10 billion program—also faces the ax. Grumman hopes to recast it as a peacetime verification system

CUT MORE COSTS

Despite an 18% work force reduction since 1987, more cost cuts are needed

IMPROVE IMAGE

A guilty plea to charges of illegally obtaining classified Pentagon documents hurt Grumman's credibility

DATA BW

Ten of Europe's toughest critics awarded Wyse their top prize. Over 3 million even tougher critics awarded us their business.

The Wyse Model 3225, winner of Europe's CeBIT award for design excellence. Novell certified as a network server, this 25 megahertz 386 runs today's demanding business software with brisk efficiency.

[1]Source: IDC 1[illegible] International Census.

WYSE is a regi[illegible] and Model 3225 is a trademark of Wyse Technology Inc. [illegible] trademarks are property of their [illegible]

he world's largest computer exposition is eBIT, held in Hannover, Germany. It is the remier international showcase for the atest and finest computer products from round the world. And in 1990, the Euro-ean computer experts who judge at CeBIT warded their top **THE WORLD IS GETTING WYSE.** onor for design excellence to a Wyse ersonal computer, our Model 3225. everal PC brands are better known than Vyse to the world at large. But it isn't par-icularly surprising that one of ours was elected for this prestigious award. Wyse esign expertise has been winning a fol-owing among computer professionals for early a decade. And today, we have an nstalled base of over 3,000,000 terminals nd personal computers. Our design goal lways is to add value. The ingenious design f our terminals, for example, gives them nore features, styling and ergonomics han the competition. For less money. As result, Wyse is the largest independent naker of computer terminals! Similarly, ur new family of UNIX multiprocessor ystems offers better price/performance atios than any similar line. Plus the invest-nent protection of expandability. You'll ind such value reflected throughout our amily of PCs, as well. All are extensions f the design philosophy and capability onored by the CeBIT judges. To learn nore about their winning ways, just call -800-438-9973.

WYSE

1 800 GET WYSE

COMPETITIVENESS

SPURRING HIGH TECH ON A SHOESTRING

Can the nascent Technology Administration do much to help U.S. R&D?

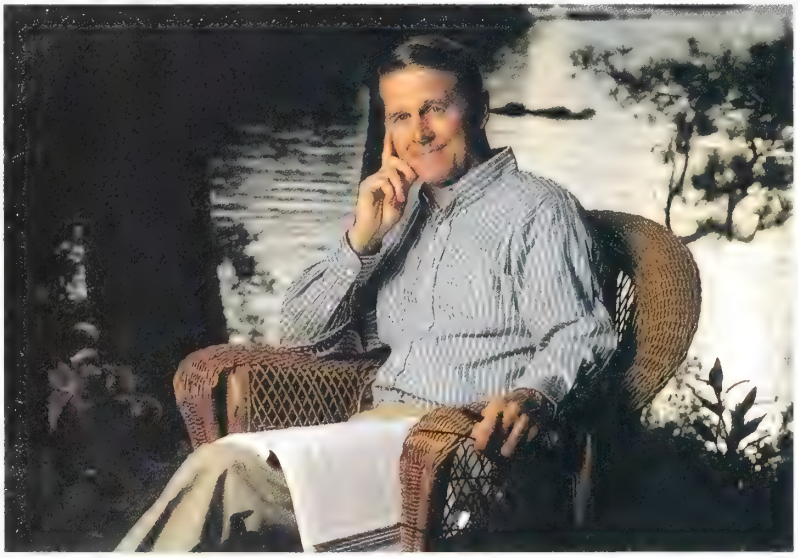
No one would confuse Robert M. White and his small band of Commerce Dept. technoids with MITI, Japan's mighty Ministry of International Trade & Industry. While MITI is credited with overseeing the government-industry cooperation that has paved the way for Tokyo's export juggernaut, White's new Technology Administration has a tiny budget, and his power is limited by the Bush Administration's staunch opposition to an American industrial policy.

But the Technology Administration represents a beachhead for those who favor a larger federal role in halting the competitive slide of U. S. high-tech industries. On July 24, White started soliciting proposals for direct federal grants to nurture critical commercial technologies. "The government now has a technology department," declares White. "We want to be a catalyst, a champion for U. S. industry."

The soft-spoken, 51-year-old White, whose resumé includes stints at Xerox, Control Data, and electronics consortium MCC, has big plans. The effort to fund cutting-edge research, known as the Advanced Technology Program (ATP), has a measly $10 million budget for 1990. But White hopes that his organization can grow into the civilian equivalent of the Defense Advanced Research Projects Agency, a Pentagon branch whose seed money funded research that led to much of the U. S. computer industry, as well as fueling advances in everything from high-tech materials to airplanes. Many members of Congress share his vision, and the House voted on July 11 to boost the ATP budget to $250 million a year by 1992. The Senate is expected to approve a smaller increase.

Beyond direct grants, the nascent Technology Administration is stepping up attempts to commercialize research done in the federal government's own laboratories and to help small manufacturers take advantage of new technologies. "It's more than the usual Washington bull," insists Joseph P. Allen, director of Commerce's Office of Technology Commercialization. "There really is something happening."

Many companies are eagerly awaiting the first round of federal money. "All sorts of people are prepared to submit proposals," says R. Wayne Sayer, a consultant to Hewlett-Packard Co., Hampshire Instruments Inc., and other high-tech shops. "That $10 million will have to be like the Biblical fishes and loaves." But companies haven't yet sent their top brass to Congress to lobby for a bigger budget. "We haven't seen as much high-level support from business as we might wish," says an aide to Senator Ernest F. Hollings (D-S. C.), whose 1988 legislation first called for the formation of the Technology Administration.



ROBERT WHITE: "WE WANT TO BE A CATALYST, A CHAMPION FOR U. S. INDUSTRY"

In part, that's because White and his team face an uncertain future. Congress foisted the whole idea of government funding for advanced civilian technology on the White House, which has fought attempts to put federal dollars into such new technologies as high-definition television. "Many CEOs are afraid to get into this fight between Congress and the President," explains Pat Choate, vice-president for policy at TRW Inc. Advocates at Commerce, along with Presidential science adviser D. Allan Bromley, had to lobby long and hard to wedge the ATP into Bush's proposed 1991 budget.

> At some point, the Bush Administration is likely to say: 'This is industrial planning—and we don't like it'

The fight is just beginning. "At some point, someone in the Administration will probably say: 'This is industrial planning—and we don't like it,'" admits a top Commerce Dept. official who supports the program. The last techno-booster to so offend White House sensibilities, Craig I. Fields, was bounced from his post as DARPA director. Soon after, he left the government for the No. 2 job at MCC. The White House has denied any role in Fields's ouster.

TIGHTROPE WALK. The prevailing ideology threatens to turn White into another powerless bureaucrat unless he gets big boosts in funding. "If the program is still at $20 million or $50 million four years from now, it's in deep trouble," says James H. Turner, counsel to the House subcommittee on science, research, and technology, who wrote much of the House bill passed on July 11.

To succeed, White must walk a tightrope. Anything that approaches helping industry develop actual products would provoke the ire of such Administration heavyweights as White House Chief of Staff John H. Sununu and Budget Director Richard G. Darman. On the other hand, "the Administration supports the idea of using federal money to fund research in generic or precompetitive technologies" such as high-temperature superconductivity, notes Bromley.

White can't afford to forget that distinction. He carefully points out that he'll focus only on technologies identified by industry—not the government—and on research that has widespread applications rather than leading to a few products. That's a fine line for White to walk. But if he can keep his balance, White House free-marketers might give him the chance to prove that his technology department can make a difference.

By John Carey in Washington

THE KISS OF DEATH?

We now import more than 40 percent of all the oil we use, and that percentage continues to grow. This excessive dependence on foreign oil could poison America's economy and our national security if our supply were ever disrupted.

But the more we use nuclear energy, instead of imported oil, to generate our electricity, the less we have to depend on uncertain foreign oil supplies.

America's 112 nuclear electric plants already have cut foreign oil dependence by 4 billion barrels since the oil embargo of 1973, saving us $115 billion in foreign oil payments.

But 112 nuclear plants will not be enough to meet our rapidly growing demand for electricity. We need more plants.

Importing so much oil is a danger America must avoid. We need to rely more on energy sources we can count on, like nuclear energy.

For a free booklet on nuclear energy, write to the U.S. Council for Energy Awareness, P.O. Box 66080, Dept. SK26, Washington, D.C. 20035.

U.S. COUNCIL FOR ENERGY AWARENESS

Nuclear energy means more energy independence.

1990 USCEA

DU PONT AND MERCK: A TOUGH NEW DUO?

▶ Impatient with efforts to build a worldwide pharmaceutical operation, Du Pont is putting its entire drug business into a joint venture with Merck, the world's biggest drug company. Faced with a highly competitive market, Du Pont stands to benefit from Merck's expertise. And Merck, with $6.6 billion in 1989 sales, will get a new cadre of researchers from the $36 billion chemical company.

The new venture will start out with $700 million in revenues. Du Pont will chip in drugs with sales of $550 million, 1,500 researchers, and most of a $230 million first-year R&D budget. Merck will provide R&D expertise, cash, and several drugs. Some analysts suggest this is an easy way out of a tough business for Du Pont. But, insists Joseph Mollica, the Du Pont vice-president who will head the joint venture: "This is not an exit strategy."

GETTING NASA OUT OF ITS FREE-FALL

▶ Can NASA be fixed? The White House has asked Martin Marietta Chairman Norman Augustine to find out. Augustine, a no-nonsense aerospace industry veteran, will head a task force set up to examine NASA's current and future projects. After the shuttle disaster, problems with the Hubble telescope, and general disarray at NASA, he will likely recommend a far [illegible] space program—one [illegible] limit the agency's ag[illegible] those things it has the [illegible] and expertise to [illegible]

THE BIG BOARD SLAMS SCHWAB

▶ Discount brokerage firm Charles Schwab was censured by the New York Stock Exchange and fined $375,000 for allegedly trading illegally in customer securities. Schwab and two executives, who were also penalized by the NYSE, consented to the sanctions without admitting guilt.

Schwab was charged with profiting in various ways from trading in securities held in trust for customers, without those customers' knowledge. After an October, 1988, BUSINESS WEEK article on the practices, the firm refunded $2.9 million to customers. Says a Schwab spokesman: "It was a sorry period. We're glad it's behind us." In April, Donaldson Lufkin & Jenrette settled similar charges with the Securities & Exchange Commission. An SEC review of the Schwab allegations is continuing.

LORAL BAGS FORD AEROSPACE

▶ Pentagon spending may be down, but don't tell that to Loral. The New York defense electronics firm is bent on getting a bigger piece of the shrinking pie. On July 23, Loral won an auction for Ford Aerospace with a bid of more than $1.2 billion.

It's a big bet. With $1.9 billion in sales, the Ford unit is almost twice Loral's size and will add new businesses such as missiles and systems analysis. But the electronics specialist has hedged its position. Since Loral joined with Shearson Lehman Hutton to make the purchase, it only put up $150 million in cash, or 50% of the equity. The rest will come from bank loans.

DON'T FORGET TO PACK THE BREATH MINTS

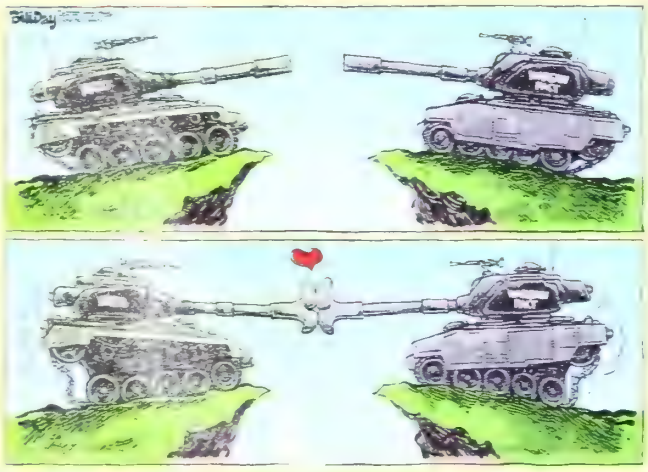
If scientists have their way, garlic breath could soon be a chic sign of good health. More than 40 scientists from over a dozen countries will gather in Washington, D. C., next month for the "First World Congress on the Health Significance of Garlic and Garlic Constituents." Garlic lovers, who are invited to attend free of charge, can hear scientists present their latest research on garlic's cancer-fighting and cholesterol-lowering properties. Bring your own cloves. And Clorets.

Used to be that the only place garlic eaters could celebrate en masse was the annual Garlic Festival in Gilroy, Calif., a place Will Rogers once described as "the only town in America where you can marinate a steak by hanging it on the clothesline." Washington may be short on clotheslines. But for those who still associate the herb with vampires and bad breath, the capital may be the perfect site to spread the garlic gospel.

LITTLE LOVE FOR HOWARD LOVE

▶ Howard Love may have reached the end of the road as chairman of National Intergroup. At a raucous annual meeting in Pittsburgh, shareholders on July 25 denounced the embattled chairman and, in a preliminary vote, ousted him as director and chairman. He's still CEO, but a 10-year reign marked by $474 million in cumulative losses and a botched effort to diversify out of steel likely is over.

The winner: Centaur Partners, a New York raider which owns 17% of the company's stock. With three seats on the board and a new shareholder mandate, Centaur will proceed with its plan to liquidate National Intergroup post haste.



COLUMBIA SHEDS ITS JUNK BURDEN

▶ After months of trying, troubled Columbia Savings announced a deal to jettison its huge junk-bond portfolio. A partnership called Gordon America will pay $3 billion for the bonds, the largest junk portfolio owned by a U. S. thrift. Made up of Canadian and Japanese banks, General Electric Capital, and others, Gordon will pay only $300 million in cash, borrowing the rest at 10.5% interest, plus a fee of up to $50 million.

How did Columbia do? The sale price is some $100 million over the portfolio's market value, but still about $1 billion less than what Columbia paid. Moreover, the sale didn't bail out an insolvent Columbia. Regulators could still seize it.

EDITED BY STEPHEN H. WILDSTROM

OW THE ABORTION ISSUE IS SHAKING HE HOUSE OF LABOR

bortion isn't the kind of lunch-pail issue that the old-time leaders of the AFL-CIO have called their own. But women workers, who offer organized labor one of its areas of growth, are pushing the federation to go on rd in support of abortion rights. Their efforts have hed off an emotional battle that has come to symbolize the of power within the labor movement.

e issue was first raised at the federation's convention last ember. Several labor groups, led by the ale-dominated needle trades and textile kers, offered pro-choice resolutions. ing to avoid a nasty floor fight, Presi- Lane Kirkland appointed an 18-mem- committee to draw up an abortion posi- On July 31, the committee, headed by ed Food & Commercial Workers Presi- William H. Wynn, will offer its recom- dation to the AFL-CIO Executive Council s summer meeting in Chicago.

e stakes are high. If pro-choice forces get a favorable resolution passed, state r federations would be free to use their siderable lobbying power and war chests ght restrictions on abortion in state leg- ures. The AFL-CIO's political arm also will be allowed to abortion as a criterion for endorsing candidates.

ut abortion may be labor's most contentious issue since the cutive Council voted in 1974 to support school busing. The ional Right to Life Committee has unleashed a campaign nst union leaders. The federation has received 12,500 let- The issue is so heated that members of the Wynn com- ee have agreed not to discuss the issue in public.

S AND DON'TS. The Roman Catholic Church, long an ally of nized labor, has also weighed in. Monsignor George G. gins, a Washington priest with close ties to labor leaders, ns that the federation will suffer "dire consequences" if it orses abortion rights. New York's John Cardinal O'Connor suggested that anti-abortion union members take advantage of a recent Supreme Court ruling and withhold any dues that do not directly pay for collective bargaining.

KIRKLAND: AVOIDING A FLOOR FIGHT

Only earthshaking change could lead the AFL-CIO to tangle with the Archbishop of New York. But the changing American work force has weakened the virtually all-male building trades and craft unions. Meanwhile, the more liberal service and public-employee unions have grown. The State, County, & Municipal Employees and the Service Employees International have already passed their own pro-choice resolutions.

Pro-choice supporters contend that organized labor has always been a leader in helping the poor and in fighting for civil rights—and that the abortion issue touches on both. Proponents also argue that their position will aid in recruiting. "This will affect the image of the labor movement in a positive way," says one supporter. "A lot of people now see the movement as older, conservative, and male-dominated."

But there are strong voices calling for continued neutrality. They argue that there's no point in risking the support of workers who oppose abortion on moral grounds to take a stand on an issue that isn't central to labor's workplace concerns. "No issue, even one as important as this one, is worth running the risk of splitting the American labor movement," Richard I. Kilroy, president of the Transportation Communications union, argued in a recent article.

Abortion may be the hardest of all issues to compromise. But the Wynn committee is under great pressure to find some way to split the difference, to avoid taking the clear stand that is bound to alienate many of labor's friends. One possibility: The AFL-CIO will support the right to privacy without mentioning abortion. Such equivocation is hardly in labor's tradition of plain speaking, but at a time when solidarity is shaky, it may be the best the federation can do.

By Susan B. Garland

ITAL WRAPUP

E SENATE

t's a good thing money alone doesn't decide elections. If it did, we could ncel most of this year's Senate races d just let the incumbents remain in fice for another six years. New Fed- al Election Commission data indicate t how big a financial advantage sen- ors seeking reelection have. In 20 ntested races in which an incumbent running, officeholders raised $30.4 llion in the second quarter while allengers raised a total of $7 million. The cumulative advantage is even eater. Challengers must spend heavi- in the early stages of a race to build me recognition and often need sizable sums for primaries as well. That helped give incumbents a huge advantage as of June 30, when they had $36.4 million in hand vs. $5.4 million for challengers. In some close races, fund-raising is more even. Senator Tom Harkin (D-Iowa) collected $452,985 in the March-June quarter, while his Republican opponent, Representative Thomas J. Tauke, pulled in $440,643.

Fund-raising may have more to do with the future ambitions of candidates than with the race at hand. New Jersey Democrat Bill Bradley, who faces only token opposition, raised $6.7 million in the second quarter, while Texas Republican Phil Gramm, who also has an easy race, fetched nearly $9 million.

CAMPAIGN '92

Most people go to the beach to relax. Not House Majority Leader Richard A. Gephardt. The Missouri Democrat recently invited political advisers and campaign contributors to his beach house in Duck, N. C., for a powwow. When Gephardt ran for his leadership post last year, he promised he would skip the 1992 Presidential race. But most House Democrats are ready to excuse him if he thinks '92 is his chance to grab the brass ring. Gephardt aide Deborah Johns says the get-together was just something her boss likes to do: "Presidential politics were not discussed."

THE *Heartbeat* OF AMERICA IS W

Our new one-ton C/K Chassis-Cab: straight, flat frame rails. Plus the operating advantages of our advanced full-size Chevy.

IS WINNING.™ TODAY'S FLEET COMPANY IS CHEVROLET

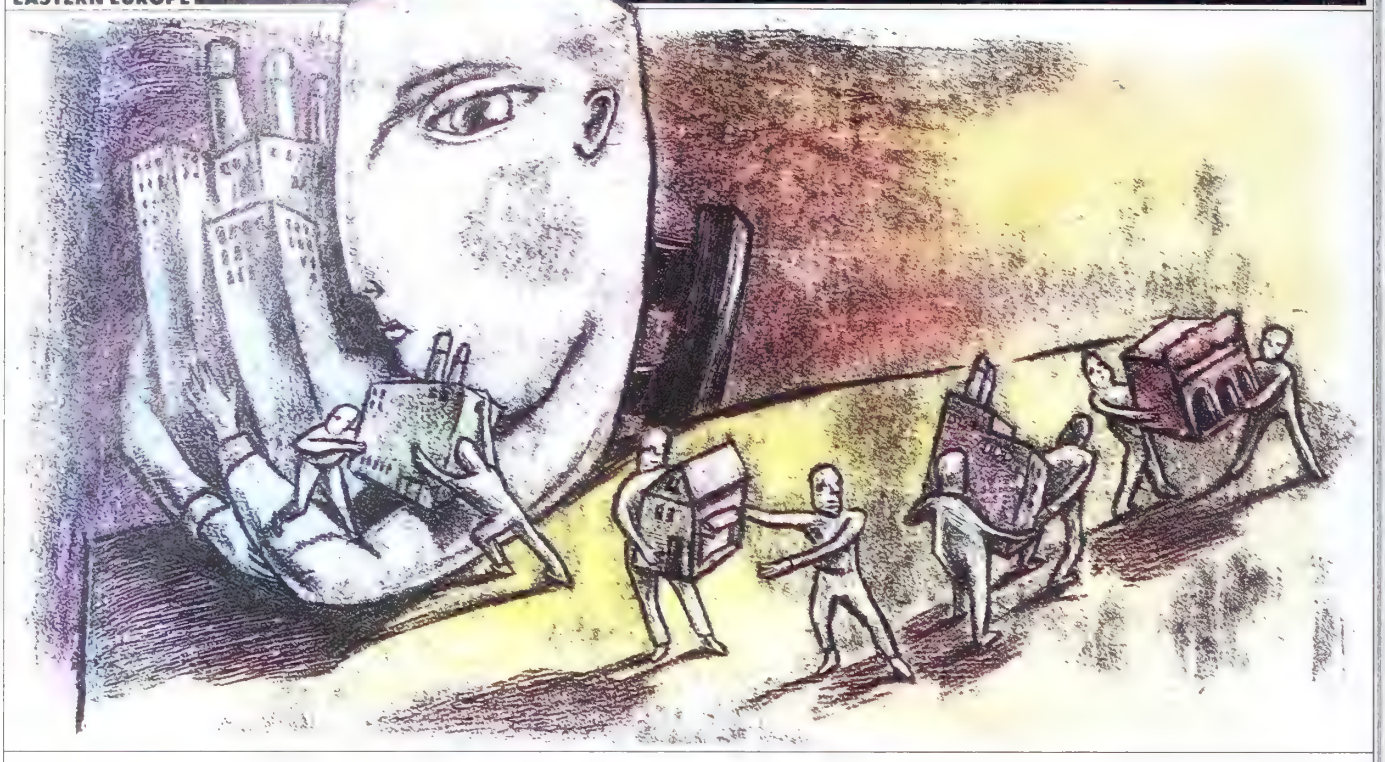
Do business with Chevrolet Fleet Sales and you work with the biggest fleet sales and service support team in the business.

We have over twice the trained fleet manpower in the field than Ford. We have an 800-number hot line to call for help. And, unlike Ford, we have a service organization just for fleet. So you deal with people who are 100% devoted to your needs. Rather than 50/50.

Call Chevrolet Fleet Sales, 1-800-248-2897. Cars or trucks, sales or service, nobody offers you more than we do.

Chevrolet and the Chevrolet emblem are registered trademarks and Chevy is a trademark of the GM Corp. © 1989 GM Corp. All Rights Reserved. Let's get it together... buckle up.

EASTERN EUROPE



IN EASTERN EUROPE, THE BIG SELL-OFF IS SET TO BEGIN

But slow-moving state agencies and a lack of property laws will plague the privatization drive

After East Germany's communist regime collapsed last October, a worker-led coup put 34-year-old Andreas Montag in as CEO at VEB Keramische Werke Hermsdorf, a state-owned maker of electronics. Montag quickly cut staff and antiquated products, set up profit centers, and hired Western consultants. His goal: Take his company private as soon as possible. But like many other East European managers, Montag has been trapped in a no-man's-land between defunct communist planning and a Western-style market economy.

For M[illegible] and thousands of others like him, [illegible] wait is nearly over. The biggest sell-off ever of state assets is about to begin. Newly elected leaders in Eastern Europe are preparing to start processing thousands of proposed deals, unloading more than $30 billion in state-owned enterprises over the next decade. "We need to sell off 40% [of industry] in [illegible] years and 80% by the end of 10 [illegible]rs," says Hungarian economist Márton Tardos. The first wave of sales this year in East Germany, Poland, and Hungary could total $5 billion.

The going will be rough. The industrial restructuring will cause massive layoffs, leading to social unrest and political turmoil. Investors will need patience. "It's not going to be a quick pay back. You can't look at it like investing in Dallas or New York," says Saul P. Steinberg, chairman of Reliance Group Holdings Inc., who wants to expand his Eastern European activities.

LINED POCKETS. Eastern Europe now has little choice but to move ahead quickly. Initial efforts to find a "third way" between socialism and capitalism have collapsed under pressure from exhausted populations impatiently demanding a better standard of living. "Piecemeal change doesn't work," says Harvard University economist Jeffrey Sachs, an adviser to the Polish government.

To avoid a giveaway to the West, Poland, Hungary, East Germany, and Czechoslovakia have set up government agencies to control auctions of state assets. They will rely heavily on Western investment bankers for advice. Until now, privatization took place under caretaker governments in a wild-West atmosphere of minimal regulations and outright cronyism and corruption. "Almost all bids have the same basic problem," says Hungarian privatization official Csatsa Gelénmi. "The managers started negotiating without an acceptable valuation of the company."

In recent deals, managers sold off their companies at bargain-basement prices, lining their pockets along the way. Following a public outcry, Hungary recently rescinded a sale of 50% of HungarHotels for $90 million to Quintus, a group of Swedish and Dutch investors, for egregious undervaluation of the 50-hotel chain.

But the state property agencies are no panacea. They're hamstrung by a shortage of skilled managers, political infight-

and the lack of a legal framework private enterprise. Moreover, they en move slowly. Managers at Hunga- $80 million Ganz Electric Works plain bitterly that in February, a t of Western suitors including West many's Siemens, Switzerland's ABB a Brown Boveri, GEC-Alsthom, U. S.- ed Magnetek, and Italy's Ansaldo e all competing to buy a stake in the ggling company. The state agency gged its feet, however, and now, only investor remains, bidding less than agency wants to accept.

NOMIC DESPERATION. When the Hun- ian property agency made its first move in June by auctioning off 30% one of the country's healthiest erprises, the Ibusz travel agen- the government's public-rela- s campaign backfired. The sell- was timed to coincide with the reopening of the Hungarian k exchange after 42 years. But ry members of parliament med the stock had been under- ed when it tripled in trading on first day, and objected to the ority of shares being listed on more liquid Vienna exchange.

he embattled agency suffered ther setback when newly elect- Prime Minister Jozsef Antall ked its chief in July for his com- nist background. The agency proposed in May to liquidate 35 panies and sell off 30 by year- , but officials now admit they be lucky to complete a handful major privatizations by then. first big concerns to be put on block will include chemical, rmaceutical, and engineering panies and several hotels. The ernment has also targeted a off of 40,000 retail stores and of farmland over the next e years.

riven by economic desperation using Western consultants, Po- l is moving the fastest to set up und rules for privatization. A law, sed by the lower house and headed the senate, to privatize larger enter- es, caps foreign investment at 10%, n special approval required for higher es. It calls for 20% of a company's res to be offered to workers at pref- ntial prices. "It's a problem of how to in foreign capital without giving y the store," says Andrzej Rapac- ski, an American adviser to the Pol- government. Five large enterprises being prepared for sale this fall, and eral hundred in 1991.

oland is also racing to privatize small ilers and department stores. But fusion still exists because, while indi- uals may own businesses, they can lease land and buildings. Warsaw resident Elzbieta Kozik quit her job at a cooperative and took $50,000 from her savings account to buy a state-owned grocery business in early July. But she has leased the land and buildings, and the government has required all sales agreements and leases to be renegotiated at yearend. "We don't want to buy all the equipment of the store if we are going to lose our lease in January. We need some guarantees," says Kozik.

East Germany's economic union with West Germany has forced slow-moving privatization efforts into high gear. That's because the longer the sellout takes, the more it will cost West German taxpayers to prop up bankrupt East German *kombinate*, or industrial combines. A new West German management team headed by Hoesch Chairman Detlev Rohwedder took control of the state property agency in July, and the team is creating five industry units to speed up the sales. Now, the first East German companies, including Montag's, could be listed on West German stock exchanges as early as December.

Auto maker Skoda is likely to be among the first Czech concerns to be privatized

Initial East German concerns about getting top dollar for state assets will be sacrificed to selling quickly and in large chunks. "What would we do with the unwanted, leftover parts?" asks one West German Economics Ministry official. That rules out cherry-picking by investors. Asea Brown Boveri aced out rival Siemens in a bid for East German power-equipment manufacturer Automated Plant Assembly by offering to buy the entire company.

WILD CARD. Czechoslovakia, with one of the stronger economies in Eastern Europe, lacks its neighbors' urgency to privatize and is still debating the pace of economic reform. Staunch advocates of rapid privatization, including Finance Minister Vaclav Klaus, have been unable to persuade playwright-President Vaclav Havel to support a plan that would include distributing free to the entire population coupons exchangeable for shares in companies. When the Czechs join the bandwagon, auto maker Skoda and electronics conglomerate Tesla are likely to be among the first to be privatized. Skoda has been holding talks with Western companies, including Volkswagen, Renault General Motors, and Fiat.

Worker unrest is the wild card in Eastern Europe's privatization drive and could slow or even derail government plans. Private owners will slash millions of unneeded workers from their payrolls. Economists forecast that unemployment could soar to 25% in Eastern Europe next year. In the first two weeks of July, East German unemployment jumped 60%, to 220,000, and labor officials project it will hit 1.5 million, or 19%, by yearend.

Massive Polish unemployment could accelerate a growing split in Solidarity, the labor union turned political movement, and destroy support for Prime Minister Tadeusz Mazowiecki's government. "If the government falls, it will endanger the whole privatization process," says Jacek Kwasniewski, an adviser working on privatization with the Polish Finance Ministry.

To soothe labor, East Germany's new government passed a law stating that workers cannot be laid off for at least 12 months after a takeover. But West German officials have put pressure on East Germany to rescind the law. "He who scares away investors is digging his own grave," sniffs West German Trade & Industry Assn. Chairman Hans Peter Stihl. Like it or not, East Europe will be learning how to do business Western-style far quicker than it ever expected.

By Gail E. Schares in Budapest, with Lynne Reaves in Warsaw

CUBA

CUBA PREPARES FOR A STATE OF SIEGE

The economic conditions of Castro's reign grow grimmer by the day

Havana was in a celebratory mood on July 23. One brightly colored float after another paraded down the city's oceanfront to kick off a week of festivities marking the 1953 battle that launched the Cuban Revolution and Fidel Castro's rise to power. But along the capital's embassy row a few blocks away, the scene was altogether different. Grim-faced policemen erected yellow barricades to prevent more political and economic dissidents from joining the 22 already inside the Spanish and Italian embassies.

The blockade only emphasized the tensions roiling under the surface of Cuban society as the economic facts of Castro's reign grow grimmer by the day. "We hope not for a crash landing but for a soft landing," says Raul Amado Blanco, vice-president of Cuba's central bank. But others are no longer so sure.

FRAYING RELATIONS. With the Cuban economy shrinking for the past five years and hard currency reserves down to $100 million or less, supplies of many items are running low. Cubans now stand, Moscow-style, in long lines for meat, poultry, and even fresh fruit. Shoes are practically nonexistent. Only such basic staples as eggs, rice, and beans remain plentiful.

Government officials concede that matters are going to get worse. Soviet President Mikhail Gorbachev has warned that Comecon, the trading bloc that is composed of Moscow and its Socialist allies, will begin transacting its deals in convertible Western currencies, instead of valueless Eastern money, by early next year. And the Soviets are planning to scale back their $3 billion in Cuban aid and trade subsidies, perhaps including the 250,000 barrels of oil they send to Havana every day.

With Moscow's ability to control its independent republics growing slimmer with each passing day, Cubans fear that these aid and goods cutbacks may be even larger and arrive sooner than anticipated. Reflecting such concerns, Castro has started preparing Cubans for a state of siege, putting into place contingency plans for emergency rationing of fuel and electricity.

As the Soviets mull reducing their aid, the U. S. also seems on the verge of tightening its 30-year-old trade embargo of Cuba. Despite the embargo, U. S. corporations have been legally selling $332 million worth of goods a year to Havana through offshore subsidiaries. Now, Congress wants to close this loophole. "The U. S. is making an enormous effort to isolate and harass Cuba," says José R. Viera, first vice-minister of foreign relations.

Washington's hardening comes as relations with Spain, Havana's main nonsocialist trading partner and foreign creditor, are also fraying. After 18 Cubans sought refuge in the Spanish embassy, Spain's ambassador returned to Madrid for consultation, and the Spaniards announced that they were putting an end to a symbolic $2.5 million in annual aid to Cuba.

Still, Spain represents Cuba's best hope of attracting foreign investment in tourism joint ventures, a key source of hard cash. Spanish investors and the Cubans have just completed the luxury Sol Palmeras Hotel on Varadero Beach near Havana. Two other Spanish-Cuban hotel projects are in the works. To encourage further ventures, the Cubans are giving foreign hotel operators the right to fire employees, and they are offering workers productivity bonuses of as much as 30% of their base salaries in exchange for harder work.

KEEPING THE FAITH: BILLBOARDS READING "SOCIALISM OR DEATH" ARE SPRINGING UP

COSMETIC RELIEF. Castro also is trying to increase medical exports to bolster his economy. Cuba is selling $80 million worth of meningitis vaccine to Brazil, exporting AIDS test kits, and building hospitals in Iraq and other countries. At the same time, Havana is stepping up calls for foreign debt relief. The Cubans are to begin negotiations to reduce $6 billion in overdue debts to Spain, Japan, and other Western countries.

But debt reduction will provide only cosmetic relief. The past year has been a nightmare for a Cuban leadership demoralized by a drug-running scandal at home, the collapse of communism in Eastern Europe, and rumblings from Moscow. "We are not going to sink," vows Julio A. Garcia-Oliveras, president of Cuba's chamber of commerce.

Castro is attempting to bolster his rule by cracking down on some dissenters and increasing the number of government vehicles on the street as a reminder of who's boss. At the same time, he has attempted to reenergize restless loyalists by whipping them into a nationalistic frenzy and encouraging debate within the Communist Party structure. Still, Castro makes it clear that only one path will do: across Cuba, huge neon signs recently sprung up, proclaiming "*socialismo o muerte*"—socialism or death. The signs say a lot about Castro's stubborn will.

By Gail DeGeorge in Havana and Antonio N. Fins in Miami

EDITED BY STANLEY REED

S IRAQ REALLY READY O START A NEW GULF WAR?

Desperately needing cash, Iraqi President Saddam Hussein is trying to raise oil prices with his army. He has put Kuwait and the United Arab Emirates (UAE) on ice that he sees their pumping crude in excess of OPEC otas as an act of war. To underscore his threats, he has ssed troops along Kuwait's borders and revived Iraq's long-nding claims to chunks of Kuwaiti territory.

Hussein is trying to parlay the might of Iraq's battle-hard-d, 800,000-strong army into leadership of both OPEC and the f region, which the world will increas-ly depend on for oil in the 1990s. That uld be a major shift with ominous lications for the West, because bel-erent, unpredictable Iraq wants to h oil prices up to $25 or $30 a barrel. cently, OPEC has been dominated by udi Arabia, which has stumped for ces of $15 to $18 to discourage switch- to other energy sources.

Hussein is revving up his tanks be-se he needs more dollars to patch up war-torn economy and finance a con-uing military buildup. Every $1 increase in the oil price ans an additional $1 billion a year for Iraq. He's also trying blackmail the gulf sheiks and Saudis into forgiving the $30 ion they lent Iraq during its war with Iran. And he's gling for a border settlement with Kuwait that might net q some oil reserves.

CK WIN. While most observers doubt that Hussein will push Kuwait, he has done rash things before—principally, rting the war with Iran in 1980. Edward N. Krapels of shington's Energy Security Analysis Inc. thinks an Iraqi ve into disputed Kuwaiti territory would not be surprising. t Arab diplomacy and U. S. warnings seem to have persuad- Hussein to wait and see what he can get from the rich abs in talks. The Kuwaitis are already said to have offered 1 billion settlement.

raq notched up a quick win in the confrontation in mid-July, when Kuwait and the UAE agreed to cuts that would slice OPEC output from more than 23 million barrels a day to 22.5 million. Hussein's rumblings have pushed futures prices from $15 in late June to almost $21. The markets are jittery because Iraq, Kuwait, and the UAE together account for nearly 30% of OPEC output.

Kuwait's concessions just seemed to whet Hussein's appetite for more. In a blood-curdling speech on July 17, he accused the Gulf States of stabbing Iraq "in the back with a poisoned dagger" by conspiring with the U. S. to force prices down. Iraq also charged Kuwait with "stealing" $2.4 billion in oil from a disputed field.

IRAQI TROOPS: SABER RATTLING

Hussein does have some tacit support within OPEC, where some members are fed up with the Gulf States' cheating on quotas. He also has the blessing of his old enemy Iran, which also needs bucks and is regaining clout in OPEC.

But Iraq's leader is heading into risky territory. Saudi Arabia, which winked at some Iraqi pressure on the gulf cheaters, won't stand for having Kuwait invaded. While the Saudis won't fight Iraq, they could punish Baghdad by closing the big Iraqi pipeline that runs through their country.

The U. S. would also be loath to let Hussein get into a position where he could throttle oil supplies. To cool him off, the U. S. is making a big show of joint exercises with the UAE. But the Iraqis would be no pushovers in a firefight.

For that reason, the most likely way out of the mess is for the Arabs to buy Hussein off with a package that might include debt forgiveness, quota adjustments, new aid, and even land. But that won't be a permanent solution, according to Sir John Wilton, a former British ambassador to Saudi Arabia. He notes that there is one certainty in paying off a blackmailer: He'll be back for more.

By Amy Borrus in Washington, Richard A. Melcher in London, and John Rossant in Ankara, Turkey

OBAL WRAPUP

OREA

The chances of reunification look better than at any time since the vision of Korea into North and South 1945. The two countries' prime min-ters plan to meet in Seoul in late ugust, and a summit conference be-veen South Korea's President Roh ae Woo and North Korea's President im Il Sung may follow. But progress ward unification is likely to be slower an in Germany, because North Korea much more backward, isolated, and uspicious than was East Germany.

Still, external pressures are pushing e North toward reunification. The orth's two main backers, Moscow and Beijing, are thought to be prodding Kim toward coming to terms with the South. The Soviets are likely to establish formal ties with Seoul in the fall, while Roh is gearing up for another effort to gain recognition from Beijing. Progress toward reunification would give a big boost to Roh, who's struggling domestically. Eighty opposition members of parliament recently quit to protest his government's high-handed tactics.

SOVIET UNION

For years, law-abiding Soviets have been stuck with third-rate goods and services because their only legal currency was the ruble. But starting on Aug. 1, they will be able to use dollars for better-quality restaurant meals and higher-class hotel rooms. The government will also open special foreign-currency stores, where quality consumer goods will be sold to Soviets.

The move is aimed at cracking the black market and soaking up an estimated $1.3 billion in hard currency in circulation or in enterprise bank accounts. It also widens the market for consumer-oriented joint ventures set up by foreigners. But the dollar's spreading influence in the Soviet economy could deal a serious blow to the nearly valueless ruble. And—perversely—holding foreign money will remain technically a crime.

© Digital Equipment Corporation 1998. The [illegible] logo and [illegible] are trademarks of Digital Equipment Corporation

digital™

"Digital's solution took TWA Getaway Vacations where we wanted to go – two years ahead of the competition."

Craig Pavlus
President
TWA Getaway
Vacations

"Today's customers want the ease of a package tour, while choosing their own dates, destinations, even accommodations. We needed a system to handle the complexity of servicing those choices, in real time. Digital found the perfect third-party software, custom-designed a system around it, then turned it on in under three months. No other computer company could have done that.

"With Digital, from a single desktop computer we book, price and confirm an entire vacation — flight, hotel, transfers, information that's from different sources—in less than six minutes. We trust this system so much, we guarantee all reservations and all prices. So far, we've managed 60% more business this year with just 5% more payroll.

"What's next? Repeating our success globally, wherever we set up shop. Digital's given us two years of strategic advantage. That's two years we've been able to offer our customers what Digital gives us: responsiveness and choice the competition is hard-pressed to match."

The rewards of working together.

Digital plans, designs, implements, and fully supports systems specific to the demands of your company, and your industry. They are solutions that work, in real time, in the real world.

Today, Digital's custom-designed systems give you an elegantly simple way for your people to work together more productively, more creatively, more efficiently, more competitively.

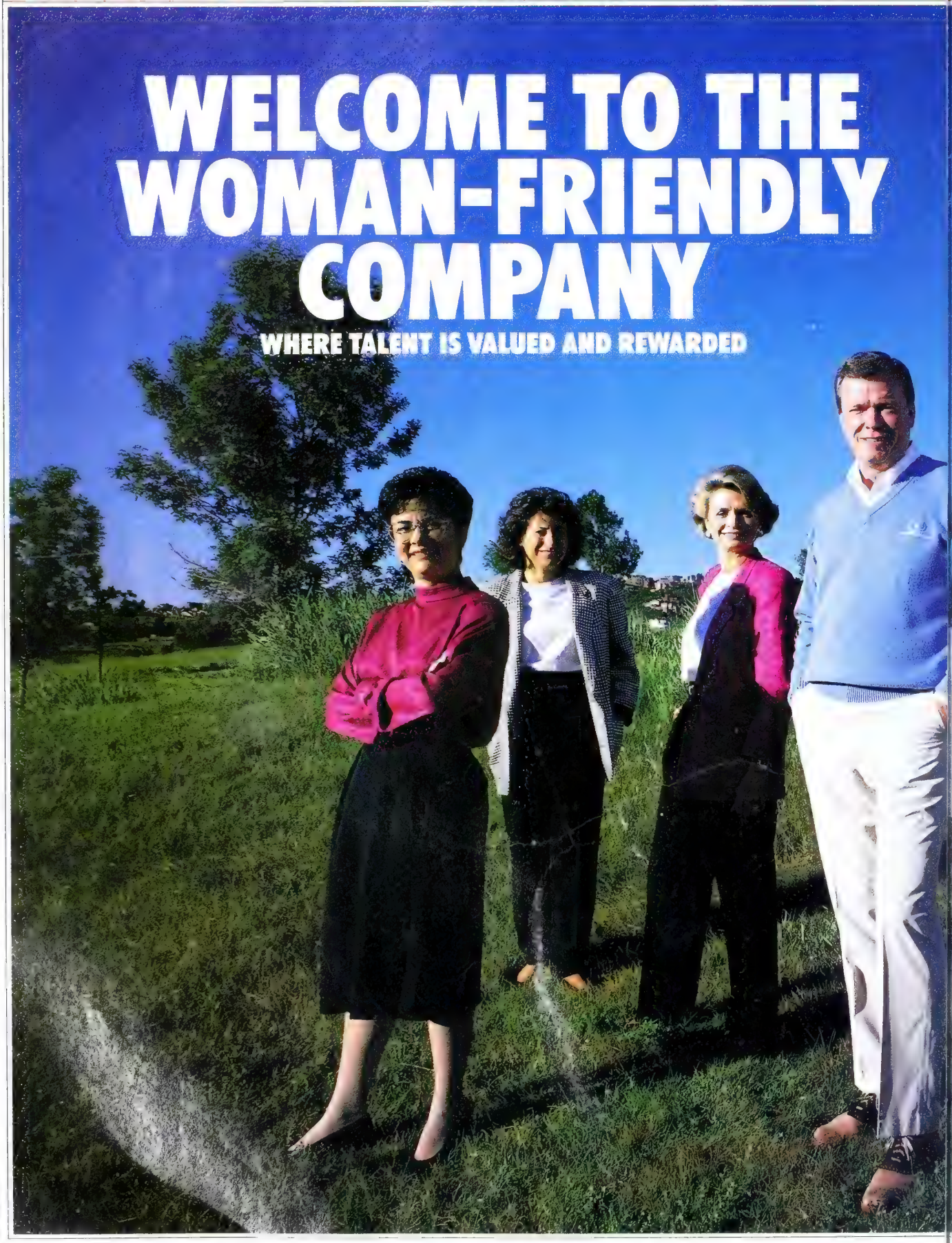
To learn more, write to Digital Equipment Corporation, 129 Parker Street, Maynard, MA 01754-2198. Or call your local Digital sales office.

A way to work together like never before.

Digital has it now.

WELCOME TO THE WOMAN-FRIENDLY COMPANY

WHERE TALENT IS VALUED AND REWARDED



On a bright and balmy Saturday morning in Denver, a vice-president of a major corporation is playing a round of golf with the chief operating officer. As every executive worth his white collar knows, this kind of relaxed time with the boss is invaluable. It's a chance to "build trust and build the comfort level," notes the vice-president, who has a 27 handicap. Over the long run, such career moments can be "very critical in terms of who will get promoted," the vice-president adds.

It's an oft-heard sentiment and a time-honored scene. But there's a twist. The vice-president schmoozing on the green with U. S. West President and COO Richard D. McCormick is Linda Laskowski, general manager of the information provider market at U. S. West Communications. Off-hours golf with women executives is encouraged by McCormick and CEO Jack A. MacAllister, who mean to set an example by reaching out to women and breaking down the barriers that impede their success. It's not just symbolism, either. U. S. West women hold 21% of jobs in the company's top 1% salary level. The brass intends to raise this share, already higher than at most other U. S. corpo-

U.S. WEST CREW: VICE-PRESIDENTS PAYAN AND SERVOSS, LEADERSHIP DIRECTOR BLAKESLEE, PRESIDENT McCORMICK, OREGON CEO CONGDON, VICE-PRESIDENT MILFORD, INFORMATION SERVICES DIRECTOR SNOWDEN, TRANS WESTERN PUBLISHING PRESIDENT BENJAMIN

rations, to 35% in this decade. "We'll have arrived," says McCormick, "once a woman is CEO."

Welcome to the woman-friendly company. At a few exceptional corporations such as U. S. West, women don't just survive—they thrive. In industries as diverse as banking, computers, and chemicals, these companies are smoothing the way for women to get to the top.

No one company is doing everything. And there's plenty of debate over how to go about it. Some companies are trying to cut back the travel, relocation, and long hours that can exclude many women with families. Companies that offer such benefits as extended leaves, flextime, and eldercare assistance help women balance the family issues that still fall most heavily on their shoulders. And any employer serious about retaining and promoting women is out front with antidiscrimination and sexual harassment policies.

But while all these elements are important, they do not go far enough. America's most woman-friendly companies are attempting something more difficult, complex, and subtle. "It's a question of consciously creating an environment where everyone has an equal shot at contributing, participating, and most of all advancing," says Phyllis B. Davis, a senior vice-president and 22-year veteran of Avon Corp. To do that, the best companies are challenging the traditional practices, assumptions, and attitudes of corporate men. That can mean anything from setting goals for promoting women to "awareness" training aimed at men (page 55).

In essence, these companies are finally acknowledging what women have long known: The top echelon of business is a man's world. Women feel they must work harder to enter it and talk louder to be heard. When they excel, it's generally without the support, gossip, gladhanding, and socializing that ease the way for men. Add to that the outright bias many male executives still harbor, and you've got one lumpy playing field. In a BUSINESS WEEK/Harris Poll, 60% of management women in large corporations identified "a male-dominated corporate culture" as an obstacle to women's success (page 54).

HOOPER: PROMOTED FROM STAFF RANKS TO HEAD BAXTER'S CANADIAN DIVISION

What makes a company woman-friendly? To find out, BUSINESS WEEK looked for major public corporations where women comprise at least 20% of top management posts, with at least one or two reporting directly to the CEO. If these women held visible line positions, with profit-and-loss responsibility, better still. A good middle-management pipeline also made up part of the criteria.

The list was short (table): Dayton-Hudson, CBS, Kelly Services, and a handful of others. But newcomers abound. Pitney Bowes, which has increased women in top management from 8% to 15% in three years, is well on its way. So are Corning and Honeywell.

Not surprisingly, the strongest players are in finance, consumer goods, and other high-growth service businesses. In steel, chemicals, and other heavy industries, few women are on the scene.

DIVERSITY COUNTS. Still, a few old-line companies believe that women can help hone a competitive edge. Du Pont, Olin, and Square D—an electrical parts manufacturing company in Palatine, Ill., with nine female senior executives—are trying to become more woman-friendly. It's not out of legal obligation or altruism, but bottom-line common sense.

Indeed, widely predicted shortages of skilled managers and young white male entrants to the labor force are putting a premium on what's being called "managing diversity." That means creating a corporate environment where women, blacks, and other nontraditional employees can flourish. And diversity itself can be a source of strength.

Pitney Bowes CEO George B. Harvey has learned that. When Pitney hit some rough spots during the recession of 1981-82, Harvey became aware of something that would forever change his view of the company's work force. "Women were putting in more time than the men—and more consistently beating their sales quotas," Harvey says. This realization helped set off an effort to boost top female ranks. "If I'm going to get the best talent, I've got to look at the entire population," he says.

By Harvey's directive, women now get 35% of all new management jobs and promotions. Of 10 outside directors, three are women—Georgetown University law professor Eleanor Holmes Norton, brokerage pioneer Julia M. Walsh, and retired Federated Stores executive Phyllis S. Sewell. And a growing number of Pitney women are building impressive careers.

Consider Carole St. Mark, 47, president of Pitney's booming business supplies and services division. Or Anne Pol, 42, whom Harvey just promoted from vice-president for personnel to vice-president for manufacturing. Pol will be responsible for 2,500 employees. Is Pitney woman-friendly? "I've worked at plenty of other places," says Pol, who joined in 1984. "Pitney is light-years ahead."

Once the brass gets mobilized, most back their commitment with

AT GANNETT, BONUS PAY MAY BE TIED TO A MANAGER'S RECORD ON PROMOTING WOMEN AND MINORITIES

BUSINESS WEEK'S BEST COMPANIES FOR WOMEN

identify companies with woman-friendly cultures, BUSINESS WEEK nsidered several criteria: numbers of women in key executive positions d on the board of directors, for example. We also looked for pointed efrts to help women advance, as well as for sensitivity on the work-andmily front. Here is a sampling of companies and what they are doing to come more woman-friendly

PACESETTERS

ON Launched effort in 1977 to promote saleswomen out of the field, nt them to management development courses. Hired consultants to delop less biased culture; provided on-site child care. Result: 27% of 41 ofers are women. Two staff execs report to CEO; two women on the board

S A women's advisory group gets the CEO's ear, has helped implement licy on sexual harassment, discrimination, and career development. bout 25% of upper-management ranks are women and female operatg execs abound, including Nancy C. Widmann, president of CBS Radio. st one, human resources head Joan Showalter, is a corporate officer

YTON-HUDSON 20% of corporate officers are women, up from 7% in 81. Two women report to the president and CEO. High numbers at low- and middle levels, even for retailing: More than 65% of merchandising inees, the farm team for executive jobs, are women

NNETT Former CEO Al Neuharth, raised by a working widowed mother nd married to a feminist, pushed for a gender-blind culture early on. omen hold 27% of the top jobs. Cathleen P. Black, *USA Today* publish, is one of the most visible female execs. Four directors are women

LLY SERVICES Women account for 90% of the work force, 30% of top anagement. Posted "weekly standing sheets" rate all employees, to take e mystery out of evaluations, create open atmosphere. Clear, perforance-oriented path to the top makes for a meritocracy where women find easy to get ahead. But there's no woman on the board and only standrd work-and-family benefits

S. WEST Women make up 21% of top 1% of employees earning 68,000 or more. Seven of the 43 top officers at the major operating unit, S. West Communications, are women. CEO sees employee 'pluralism' as business strategy. Fifteen years of sensitivity training on gender and ace women's group have helped change culture, expand opportunities

UP-AND-COMERS

MERICAN EXPRESS Aggressive recruiting of women at business schools nd other companies in the 1970s, and gender-blind opportunities have ven women 22% of 72 jobs at senior vice-president level and above in e Travel-Related Services subsidiary. Two women directors

AXTER INTERNATIONAL A hefty 20% of managers' bonuses are tied to cord of promoting women and minorities. Goal: to boost the number of omen vice-presidents and above, which now number 29 out of 451 .4%). No direct reports to CEO yet, but a woman heads the Canadian perations, one of Baxter's largest divisions

ORNING By 1991, CEO James R. Houghton wants 10% of top managrs to be women. Corning emphasizes work force diversity and has introuced mentoring among other programs to help women get ahead. Thanks these efforts, turnover among women managers has dropped sharply

ONEYWELL With women holding 5.4% of top management slots, work orce diversity has become a major crusade. Top execs coach high-potenal women, minorities. Exploring controversial accelerated development rogram to give women broad management experience in five to seven ears, rather than usual 10. Extended 'family leave' for men or women

BM A respectable 12.6% of IBM's upper-management ranks are filled ith women, among them three officers. One woman on 18-member oard of directors. Emphasis on women, like men, adapting to IBM culture, ather than on corporate cultural change. Excellent benefits include exended leaves and elder care referral services

JOHNSON & JOHNSON Only 6% of vice-presidents and above are women, but Ortho, Ethicon, and a number of other divisions in this decentralized company are attacking bias with comprehensive work force diversity programs. These include intense consciousness-raising workshops. Kids get day care at headquarters. Two women directors

MERCK Women in top jobs have jumped from one woman in 1981 to 7% this year, with a target of 20% by 1995. CEO reviews the numbers of women in management every quarter, and recently promoted Judy Lewent to CFO, making her one of first women to hold that corporate office

MONSANTO Women make up 12% of all managers, but no direct reports to the CEO. Record of minority and female recruitment part of management performance review. Two women on the board. Searle and NutraSweet divisions had exceptional track records in promoting women when acquired in 1985.

PITNEY BOWES 15% of top managers are women; CEO has mandated that 35% of all professional hires and promotions will go to women. Two women report directly to CEO; three women sit on the board. Good record of moving women from staff to line jobs

READER'S DIGEST Women traditionally flock to publishing, but few companies can boast this pecking order: Five of the top 27 senior vice-presidents are female, including two direct reports to CEO. Insiders say the husband-and-wife founders and family-like atmosphere helped create an equitable culture. Three women on the board

SECURITY PACIFIC BANK 12% of senior vice-presidents or above are women, as is one director, but no direct reports to the CEO. Its Seattle bank recently started a 'diversity' program with customer and work force demographics in mind. Began seminars on cultural, ethnic differences. A mentor program pairs minorities and women with more senior managers

SQUARE D The CEO of this electrical manufacturing company values women as managers. Nine of the top 200 executives are women, although none are direct reports. Recruiting and retaining women and minorities is weighted at least 20% in determining managers' salary increases

LATE BLOOMERS

DIGITAL EQUIPMENT Aside from two corporate vice-presidents, women haven't hit the top ranks in significant numbers yet. Program involving small groups of employees tries to break down race and sex stereotypes. Close to 30 ad hoc women's groups focus on career planning

DU PONT Strong emphasis on work force diversity. Managers required to take intense training to help improve sensitivity. But less than 3% of top professionals and managers are women. Women last six years on average, while men stay 16. Two women on the board. Superstrong family benefits in recent years

HEWLETT-PACKARD Five women run divisions, compared with none five years ago. Women hold 12% of upper-middle jobs, 24% of technical positions. Meritocracy with good benefits, but no formal programs to help women advance. 1988 conference on opportunities for technical women brought hundreds of attendees

OLIN Management has begun planning career development programs to overcome mutual bias and aversion between specialty chemicals business and women. A task force is also looking at sensitivity training and establishing goals. Two women recently promoted to vice-president

3M With women holding only two of the top 130 jobs, a corporate task force is working on redefining career paths and finding ways to give women broader experience. Both men and women can work part-time for family reasons. Top executives and women managers strongly encouraged to participate in mentoring programs

XEROX So far only nine (4.5%) of top 200 top execs are women. Pushing ambitious program with goal to increase that share to 20%. Managers' affirmative action record now emphasized in performance reviews

NIKKI MOODNOVIR

specific numerical targets. Some companies even tie compensation to how well managers help meet these goals. At media giant Gannett Co., up to 10% of bonus pay may be linked to a manager's record on promoting women and minorities. "Disbelievers of our commitment felt the pain in their paychecks," said CEO John J. Curley in a recent speech.

"This is clearly one of the areas in which I'd like our managers to grow," agrees CEO Vernon R. Loucks Jr. of Baxter International Inc. in Deerfield, Ill. At Baxter, 20% of managers' performance bonuses depend on their success in recruiting and promoting women and minorities. The hard part, says Loucks, is making sure that women are really considered for important jobs.

SELF-CONFIDENCE. Michele J. Hooper was. After 14 years with Baxter in finance and corporate planning, Hooper, 38, was promoted out of staff ranks to head Baxter's Canadian division, which employs 1,500 people and generates about $300 million in sales. "Vern worked hard to get me on the slate for this job. I'm sure I beat out lots of white men," says Hooper, who is black. The payoff: more self-confidence and more commitment to Baxter. "I definitely have higher career aspirations now. How high I can go has constantly amazed me," Hooper says. That kind of boundless feeling is rare among corporate women—but it's exactly what makes the talented ones want to stay.

Targeting women for promotion has its critics. The danger, some say, is that companies will make special concessions to move women ahead. At Honeywell, executives are considering an accelerated development program that would raise a crop of broadly experienced management women in five to seven years, rather than the usual 10.

But faster tracks may set off a male backlash, or resentment by women who have climbed the ladder alone. "It's relatively straightforward to say that they're going to put Michele Hooper into that job," says a former senior Baxter manager, who is male. "But they may be putting her into a job in which she's going to fail because she doesn't have any previous line experience."

At General Mills Inc. in Minneapolis, where about 10% of top managers are women, such issues have been dealt with head-on. Executives say the best way to advance women is with a meritocracy that emphasizes training and development for all employees. "We do no special out-reach efforts to recruit female professionals, and we don't have any special programs for women," says Joan H. Engstrom, director of equal employment opportunity at General Mills. "Frankly, the women here would view any special treatment as insulting."

Few corporate women are asking for favors. What many do want is the removal of roadblocks. Women still lag in pay equity and promotions. Many find that a pregnancy hurts their status. In 60% of large corporations, fewer than 5% of senior managers are women, notes a new survey by Catalyst Inc., an organization promoting women's leadership. Since Liz Claiborne stepped down, only one major public company is headed by a female CEO, Katharine Graham of Washington Post Co. Women remain largely ghettoized in personnel and communications. Setting specific goals, taking quick steps to achieve them, and giving women a shot at high-risk, high-visibility assignments is the only way to level the field, proponents say.

INPUT IGNORED. Yet promotion alone isn't enough. "You can put [women] in jobs, but that doesn't mean they will succeed. How we bring them along and train them so they get peer acceptance is as big an issue," says John W. Johnstone, CEO at Olin Corp., a chemical company in Stamford, Conn., new to the woman-friendly path.

Competence doesn't always lead to acceptance. Women have long groused that their input is often ignored, particularly in a group situation. Last year, during a leadership conference at Du Pont Co., Marcia Coleman, a laboratory director, confronted her male colleague, Vice-President Anthony J. Cardinal. "Did you notice what happened in the meeting whenever a woman offered a thought?" Thomas asked. No, he hadn't. "Pay attention tomorrow," she challenged. The next day, Cardinal noticed that whenever a women brought up an idea, the conversation swept past her. "I had never appreciated the problem before. I started to get an inkling of what women go through every day," Cardinal says.

Like a growing number of other companies, Du Pont is training male managers to help them identify and overcome the subconscious ways they still unfairly treat women. "Men have to understand that their behavior can exclude women

IS YOUR COMPANY WOMAN-FRIENDLY?

	A	B	C
Of top management jobs (directly reporting to division heads and above, or top 1% of salaried work force), which percentage is held by women?	15% or more	5-15%	Less than 5%
Of those top managers, how many report directly to the CEO?	3 or more	1-2	0
Which best describes your company's efforts to improve women's standing?	Goals and programs	Surveys and consultants	Forget it
To help ease work and family conflict, how many of these options are offered: Flextime, job sharing, telecommuting, extended leaves, part-time tracks, child care/elder care referral, or on-site child care?	Most of those	Three or fewer	None
In the past week at work, how often have you heard a sexist joke or sexual innuendo?	Never	Once or twice	Can't count them all
BONUS QUESTION			
For male managers only: Workplace romance aside, how often do you lunch or socialize with a woman colleague or subordinate?	Once a week	Once a month	Only when I have to
For female managers only: In the past month, have you been ignored in a work setting, or been left out of the information loop?	Absolutely not	Once or twice	It's the story of my life

SCORING For every A answer, 20 points; for B, 10 points; for C, 0.

OVER 100	Visionary	**60-70**	Could be worse	**20-30**	Boss preferred the good old days
80-100	Woman-friendly	**40-50**	Female turnover is a problem	**0-10**	Class action candidate

a variety of ways," says Elsie Y. ss, a Philadelphia-based consultant conducts training on race and gen- bias for Johnson & Johnson, Exxon p., and others.

uch behavior isn't confined to older . Sure, most top managers came of in a homogeneous business environ- t and haven't yet adjusted to a more rse workplace. But today, women plain about a "new-boys network"— nger male managers who know all right things to say but deep down aren't comfortable working with men. "You can say, here are men who e gone through business school with men," says Barbara Z. Otto, senior -president of credit examination ser- s at Bank of America headquarters an Francisco. "Yet I can't see a dif- ence in younger men's attitudes. As a lt, a lot of us still don't get the good tical information that we should. I t prove that, but I feel it."

O THE LOOP. That "feeling" is some- es hard for men to understand. neywell managers were intrigued by ecent employee survey in which wom- cited personal relationships as the element in upward mobility. Men relationships were least important. o get women into the loop, Honey- l is trying to have a say in the way kplace relationships are established. company has started teaming ups of promising young women and orities with more experienced execu- s. The "coaches" give advice on ca- r strategies and corporate politics. At ning and 3M, managers are trying a -on-one mentoring approach.

Honeywell is even encouraging more ormal activities such as picnics and cle rides instead of golf matches and er games. One model might be Avon ducts Inc., where top executives used meet once a year for "President's f Day." When women started joining nagement in the late 1970s, then-CEO ve Mitchell noticed that few used this ortunity to socialize with their male rs. He added tennis and swimming to activities, and excised the word olf." Those moves ped bring out more men for President's y.

Then there's the lunch blem. During a gen- -awareness workshop Corning in Corning, Y., women executives nplained that their le colleagues never ited them. Not that ch per se was impor- t. But the women felt y were missing out useful gossip. That ld include news of someone being transferred, which would mean that a job had opened. Or it could be a mention that the boss was interested in a new-product category. Tidbits like these are often at the bottom of one elusive element of success—the part that executives usually chalk up to being in the right place at the right time.

AMERICAN EXPRESS' BUSQUET LAUNCHED THE OPTIMA CARD

A THIN LINE. For Corning men, realizing that they were cutting out women was just the first step. Now, coed executive groups can be seen frequenting Corning's favorite lunch haunts or having drinks after work. "Men didn't intend to be exclusionary, they just were," says Susan B. King, president of Corning's Steuben Glass division and the company's highest-ranking woman. "There was a level of discomfort for them when women showed up because Corning had always had a white, male-dominated culture."

The discomfort can be compounded in a small town like Corning, where the sight of a man and woman lunching still has a nonbusiness connotation, notes Bea Young, a Chicago consultant who coordinated Corning's gender workshops. Indeed, male managers these days sometimes feel they must tread a thin line between camaraderie and the appearance of impropriety.

Certainly, sexual harassment and outright sexism haven't disappeared from the corporate scene. But companies that are serious about retaining women are trying to end other, more subtle forms of sexism as well. That includes double entendres and sexist remarks. "If we hear off-color jokes or statements, we call people on it now," says William D. Schaeffer, vice-president of quality assurance at Johnson & Johnson's Ethicon division. "If people don't get with the program, they will not advance."

After all, in today's competitive environment, no company can afford to alienate talented managers. And managers increasingly believe that a hostile environment is a major reason women quit corporate jobs more frequently than men. According to the Bureau of Labor Statistics, the median amount of time that female executives, administrators, and managers stay with the same employer is about five years. For men, it's about seven. At Corning, 13.1% of female employees left between 1980 and 1987, nearly double the 7.8% rate for white males there.

It has long been assumed that women leave the corporation to be home with their kids, or for other family reasons. Family responsibilities still fall most heavily on women, whether by nature, nurture, choice, or default. For many women, the "double burden" of family and career dampens the will and desire to succeed at work, argues Matina S. Horner, who developed the concept of "women's fear of success" in the 1960s. A social psychologist and former Radcliffe College president, Horner is a senior vice-president at pension fund giant TIAA-CREF.

Flexibility in the workplace can help, Horner believes. And companies with strong family-benefit policies in general have a better shot at holding on to talented women. But limited career opportunities, or discomfort with the culture, can play into the decision as well. "Some

TOO OFTEN, CEOs POINT TO A LONE WOMAN AS PROOF OF GENDER BLINDNESS— WHICH OFTEN TURNS OTHER WOMEN OFF

Business Week/Harris Poll

THE VIEW FROM THE TRENCHES

Women managers at larger companies are fairly upbeat about Corporate America, although they still see significant obstacles for women. More than out-

right discrimination, atmosphere's the biggest problem: Fully 60% say a male-dominated corporate culture is a barrier to women executives at their companies.

CORPORATE AMERICA'S REPORT CARD

■ How would you rate large corporations generally as a place for women executives such as yourself to work—excellent, pretty good, only fair, or poor?

Excellent	10%
Pretty good	63%
Only fair	21%
Poor	1%
Not sure	5%

FALLING ROADBLOCKS . . .

■ Now, would you say each of the following is an obstacle to success for women executives at your company, or not?

	Is an obstacle	Isn't an obstacle	Not sure
A male-dominated corporate culture	60%	39%	1%
Difficult communication between men and women	25%	75%	0%
Reluctance to give women the same opportunities to advance as men	43%	56%	1%
Failure to recognize women's family needs	31%	65%	4%
Unwillingness by management to give women equal pay for equal work	38%	59%	3%

. . . BUT THERE'S A LONG WAY TO GO

■ Has your own company done any of these things over the past five years, or not?

	Has done	Hasn't done	Not sure
Evaluated managers in part on their success in hiring and promoting women	28%	65%	7%
Promoted a woman to a top executive position	68%	31%	1%
Instituted specific policies which are sensitive to women's work and family needs, such as flextime, parental leave, on-site child care	40%	59%	1%
Increased the number of women board directors	25%	70%	5%
Established special programs to make managers aware of gender	23%	70%	7%

BETTER ATTITUDES

■ How would you rate your company on each of the following—excellent, pretty good, only fair, or poor?

	Excellent	Pretty good	Only fair	Poor	Not sure
Evaluating performance without gender bias	34%	47%	15%	2%	2%
The CEO's attitude toward women managers	38%	37%	18%	4%	3%
The absence of boys' club culture	13%	32%	34%	16%	5%

THE FIRST WOMAN CEO

■ How long do you think it will be before your company names a woman chief executive officer—in the next few years, 5-10 years, longer than 10 years, or never?

Has one now	4%
In next few years	2%
5-10 years	20%
Longer than 10 years	49%
Never	20%
Not sure	5%

Edited by Mark N. Vamos

Survey of 450 women executives at corporations with $100 million or more in annual sales or 1,500 or more employees. Interviews were conducted June 20-27 for BUSINESS WEEK by Louis Harris & Associates Inc.

women drop out because they don't feel they fit in. They don't fit the profile, which means they're not male," says Jane Evans, CEO of San Francisco-based InterPacific Retail Group, a private string of specialty shops. Evans at one time ran Crystal Brands Inc.'s Monet jewelers.

Thus, family benefits alone can't always keep talented women aboard. "There is no direct correlation between companies that have excellent maternity and child care benefits and companies where women get ahead," says Lorraine Dusky, co-author of *The Best Companies for Women*. Therefore, if a company doesn't also offer a supportive environment and good professional opportunities, women with other options may just bail out.

NO OPPORTUNITY? Look at Peggy Wyant. In 1984, after 17 years, Wyant left Procter & Gamble Co., where early on she was the company's first woman brand manager. Yes, she now stays home with four children, doing part-time consulting. But Wyant says kids were only part of her reason for leaving. Wyant, as head of a strategy committee that reported to the CEO, helped set in motion the acquisition spree that has won big shares of the over-the-counter drug and cosmetic markets for P&G. "If they had made me a vice-president," she says, "I would have seriously reconsidered my decision [to leave]." Since then, P&G has stepped up its efforts to encourage "diversity." And its work-and-family benefits are renowned. But there are still no female vice-presidents.

Increasingly, top executives realize that their male-dominated corporate cultures contribute to the problem. And more and more CEOs know that changing attitudes and practices requires commitment starting at the top.

Indeed, several CEOs seem recently to have looked around and realized that theirs was a white, male world. One such epiphany came to Olin's Johnston in January. Since then, he has promoted two women to vice-president and is currently establishing career development programs for women and minorities. "I think my attitude, like many midlife males, has changed as I've seen the quality of output from women," he reflects.

Sometimes the awakening is of an even more personal nature. David Stanley, CEO of Payless Cashways Inc., a private hardware retail chain boasting a large number of women managers, says he has been influenced by his wife, a high-ranking health care executive.

It's not a matter of paternalism. And it's not enough for a company to have a few highly placed women. Frequently,

point to a lone woman as evidence ender blindness. Instead, such examare often viewed as tokens, and that work against efforts to attract and n other women. When a Johnson & son unit surveyed women managers had recently left, the company disred that isolation was one of their complaints.

a company truly wants a crop of tanding women, it must cultivate its en. American Express Travel-Relat-Services Co. knows that. Over the 10 years, women have made up fully half of its MBA recruits. From this woman-rich corporate loam, a number of managers have worked their way up—to the point where 22% of the company's 72 senior vice-presidents and above are women.

Executive Vice-President Anne M. Busquet, who launched Optima Card, the company's first revolving credit card, was an early recruit. Aggressive recruiting also brought in Sarah M. Nolan, who introduced Membership Savings, and Norma Arnold, who heads the membership retention department.

Strong recruitment of women has done more than put these stars in orbit. The pervasiveness of women managers has "really changed the culture," says Busquet, since everyone learns that "success is not due to either working for a woman or working for a man. Once you have that, you've won." At her company, "if you're not linked to the female network, you would be missing half the picture," says Busquet. That's the way it is at the best companies for women.

By Walecia Konrad in Atlanta, with bureau reports

ANGER, SHOUTING, AND SOMETIMES TEARS

t's called the reverse fishbowl. In this exercise, a dozen uncomfortable-looking men sit in the center of onference room in Plainsboro, N. J. ey are pretending to be their female eagues at Ethicon Inc., a subsidiary Johnson & Johnson that makes surl sutures. The women sit nearby as men discuss this topic: "The trouwith men at Ethicon is . . . ."

The old-boy network doesn't share rets with me," says one man, as the erse role-playing begins. "I get cut in meetings. When I assert myself, y think I'm a bitch," says another. eople are always wondering I was promoted because I ot with the boss. Men don't e to deal with that." As y listen, the women's reacns range from "amazed" to d" to "pissed off."

ENSE. Then the positions are ersed. Women mimic men: didn't go over her head. I t called my old friend, Bob." hy does she get so emotion-" "We let women in here, l all they do is complain." st men reject this portrayal. angry exchange follows, ded by four "facilitators."

Another Ethicon diversity workshop, by organization development contant Elsie Y. Cross Associates Inc., off and running. For nearly two rs now, groups of managers have the heat of this crucible: a three- retreat to raise awareness, exam- racial and gender bias, and seek ys to change. There is anger, shout-, and sometimes tears.

Making it constructive is the point. en "Ron" interrupts "Fay," saying: on't get upset," a facilitator notes t Ron has minimized Fay's anger, pped the discussion, and asserted trol over Fay. "I guess I could ask to tell me more next time," Ron ers.

The workshops have their roots in the T-groups, sensitivity-training sessions, and encounter groups of years past. But today's diversity-awareness trainers avoid the terms sensitivity (too touchy-feely) and encounter (too confrontational).

"The history was very mixed," concedes Warren Bennis, a management professor at the University of Southern California and one of the founders of the field. Implementing off-site training in the workplace "is always problematic. There's always something of a fade-out effect," he notes.

HASHING OUT DIFFERENCES AT ETHICON

That's why Elsie Cross, 61, an MBA, social psychologist, and a former school teacher, tells clients to think in terms of a 5-to-10-year commitment. The workshops, which most employees will experience just once, are only a start. "This is not a quick fix. We are talking about massive cultural change," says Cross, who is working with nine J&J divisions on managing diversity. A three-day workshop for 20 employees costs about $25,000.

The Ethicon process started at the top. Urged by President Robert W. Croce, board members went through a workshop. With Cross, they set up a program for the company that includes action and advisory teams and goals for promoting women and minorities. Some senior male managers are "champions," the official role models.

Diversity workshops have their doubters. David L. Bradford, who teaches organizational behavior at Stanford University, worries that some sessions may degenerate into "white male bashing. The world is more complicated than that." It's better to train women and minorities to act in more influential ways, he says.

But chemical engineer Barbara Schwartz, 36, who supervises 125 people in Ethicon's research department, says the workshop helped her "sympathize with white men as products of their history," and to better understand black women's experiences. She says male colleagues now value her work more.

It's not all smooth sailing at Ethicon. Allusions to the "diversity police" denigrate the effort. Still, at a recent sales group meeting, an outside consultant who made sport of company guidelines and told an off-color joke during his presentation was abruptly dismissed by the sales manager.

In the first year of "diversity awareness," the proportion of women in top management jumped from 7.8% to 12%, while the smaller minority share more than doubled. Managers say the workshops are crucial. "You feel guilty, frustrated, exhilarated. But you get to communicate at a different level," says diversity "champion" William D. Schaeffer, 42, Ethicon's quality assurance vice-president. Schaeffer has added three women to his senior staff. These days, he says, "I pay more attention to a person's competency than to whether that person fits the classical mold."

By Elizabeth Ehrlich in Plainsboro, N. J.

ANDY FREEBERG

FOR LAW FIRMS, IT'S *DOG v. DOG* OUT THERE

Fierce competition has attorneys slashing their bills and corporate clients calling the shots

When Henry L. King went to work for Davis Polk & Wardwell 39 years ago, partners at Wall Street law firms lived in a world of power and privilege. Loyal clients paid them handsomely, followed their instructions diligently, and rarely defected to other attorneys. And, until very recently, questions about hours or billing rates "were virtually unheard of," says King.

No more. Clients these days are demanding detailed bills and pressuring their attorneys to hold the line on fees. And firms are scrambling to please them with services they never would have considered a few years ago. "Within the past six months, the competition that was building in the '80s is now being felt very keenly," says managing partner King. "We can't just rest on our laurels." So in June, staid Davis Polk added to its ranks a full-time communications and marketing director.

All around the U. S., law firms with pedigrees every bit as prime as Davis Polk's are slashing bills or agreeing to work on a contingency-fee basis. They are competing in bidding wars. They are raiding rivals for partners with hot specialties. And they're opening nonlaw businesses. "The supply of lawyers is beginning to catch up and exceed the demand," explains Charles R. Hann of Altman & Weil, a legal consulting firm, and clients are exploiting the situation. When the dust settles, clubby senior partners will be replaced by competitive managers selling legal services.

Leading the client revolt are corporate general counsel such as Harry J. Pearce of General Motors Corp. As a partner in his family's Bismarck (N. D.) firm, Pearce had defended GM in product liability cases for 15 years before joining the auto maker in 1985. He knew how GM worked and where it was vulnerable to suits. He also knew the company was spending too much for outside lawyers.

So Pearce has been chopping away at those expenses. He has set up a committee to review the work of GM's outside law firms and to fire those that don't measure up. He demands detailed itemized bills and insists on cost-cutting changes in the way firms run their offices. And he steps into areas of case management that lawyers traditionally consider off-limits to clients. "I'm very, very interested in how a law firm staffs a case," he says. "A lot of money gets spent with overstaffing."

At Pearce's prodding, Chicago-based Kirkland & Ellis installed a new software system to link its offices with GM. The electronic-mail system eliminates duplicating, faxing, and overnight mail costs—huge expenses that firms typically pass onto clients. Thomas A. Gottschalk, the Kirkland partner in charge of GM's billing, estimates that the system cuts GM's bills by as much as one-third. "Harry Pearce has really raised the level of attention of law firms, so firms are really monitoring the costs," he says.

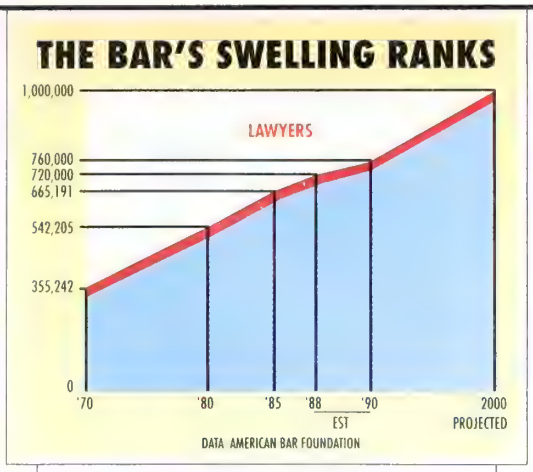
Pearce is not alone. General counsel from Prudential Insurance to Unisys are asserting themselves as never before. "Law firms are now purveyors of service, with the general counsel in charge," says Robert J. Berkow of Ernst & Young, which has surveyed corporate law departments for 13 years.

These days firms often use marketing techniques right out of industrial America. In June, the energy-law group of New York's Chadbourne & Parke held a seminar in Charleston, S. C. Of the 140 attendees, 100 were potential clients. The lawyers organized sightseeing and fishing trips, picked up the tab at top restaurants, and threw a beach party. "We gotta hustle," says Rigdon H. Boy-

Harry J. Pearce at General Motors helped lead the revolt among general counsel to review the performance of outside law firms and fire those that don't measure up

who runs the 30-lawyer group. hile firms coddle clients, they el one another. Traditionally, tough courtroom adversaries wed the rules of genteel competi- in business matters. Now, firms nly angle for their rivals' impor- clients but woo away their part- Los Angeles-based O'Melveny yers in June snagged bankruptcy Joel B. Zweibel from 135-lawyer ner, Levin, Nessen, Kamin & kel—forcing the New York firm un to a consultant for help in cing Zweibel's estimated $6 mil- in annual billings.

rms are seeking economies of and to broaden their services. On 1, 475-lawyer Baker & Hostetler of eland merged with 80-lawyer utchen, Black, Verleger & Shea of Angeles. Small firms seem headed extinction. When 20-lawyer Pollner, an, Stolzberg & Berger split up in Martin R. Pollner said the small is "economically a dinosaur." ner—who represented Wedtech



tell them how to run their businesses.

The changes are creating tensions within the profession. At the American Bar Assn.'s annual convention, which starts on Aug. 2 in Chicago, the ABA's governing body is set to review two issues that lawyers say are crucial to shaping law practice in the future. The first is whether law firms should be barred from owning or running "ancillary" businesses such as the consulting firms. The second is whether nonlawyers such as Santagati should be allowed to own a piece of law firms. Critics say that the questions strike at the heart of the lawyer-client relationship and threaten the legal profession's "grand traditions," including the right of self-regulation. But lots of clients applaud the erosion of those traditions, and some bar groups agree. On Mar. 1, the Washington (D. C.) bar was the first to let some nonlawyers become partners in firms.

Not long ago, lawyers in firms viewed general counsel as lacking what it takes to make it as a partner. General counsel were often relegated to menial chores, such as keeping track of the outside lawyers and ensuring they got paid. Now that the tables have turned, many of the newly ascendant general counsel say that outside lawyers have only themselves to blame. Since the late 1960s, firms have been regularly boosting billing rates to cover their associates' soaring salaries. In its 1989 annual survey, *The National Law Journal* reported hourly rates of $400 in New York, $375 in Los Angeles, and $385 in Washington, D. C. So companies started taking the work in-house. Corporate counsel and consultants say that it costs about one-third less to have work handled by in-house lawyers.

The high salaries were also attracting more students to law schools. Of the estimated 760,000 attorneys licensed to practice, almost half have been admitted to the bar since 1980. But now, with the drop in Wall Street dealmaking and the real estate slump, even the top firms are feeling squeezed. Consultant Bradford W. Hildebrandt of Hildebrandt Inc. says billable hours this year are down 5% to 10% from 1989, while law firm debt is way up.

With the mounting competitive pressures, firms are abandoning their strict partnership structures. Before, lawyers joined as junior associates, worked for years, and then either made partner or left. Now, firms are setting up hierarchies with second-tier salaried lawyers who never share in the firm's profits.

STRONGER VOICE. While firms try to trim overhead, they're spending lots on marketing and public relations—practices that were shunned just a few years ago (page 58). At the same time, law firms increasingly are having to submit bids for business. When Prudential Insurance Co. announced its decision in April, 1989, to buy Merrill Lynch Relocation Management Inc., Chicago's Sonnenschein Nath & Rosenthal was among the three firms invited to compete for the legal work on the $340 million deal. Prudential general counsel James R. Gillen says he picked Sonnenschein because "they were very responsive to client requirements."

Clients are also demanding a stronger voice in managing their cases. Robert L. Robinson, chief counsel for litigation at Cigna Corp., says that in lawsuits he

Thomas A. Gottschalk's firm, prodded by Pearce, installed an electronic mail system between its offices and GM's that cuts bills on each project by up to one-third

., the rogue Bronx (N. Y.) military ractor—was snatched up by Bos- Gaston & Snow.

enhance profits, at least 80 law s have opened nonlaw businesses, rding to the Practice Development nsel, which tracks the new services. hington's Arnold & Porter has con- ng subsidiaries in the areas of bank- lobbying, and real estate. Boston's ner & Dodge runs a literary agency. r firms are hiring nonlawyer MBAs, as Richard Santagati of Gaston & v, and paying them six figures to

wants to know the plans of his outside lawyers and how much each phase of the case will cost. He also insists on seeing all documents to be filed in court.

Because they are hungry for the business, some firms are even swallowing changes in the way they get paid. The so-called billable hour no longer makes sense to some corporate counsel. Complains Andrew D. Hendry, general counsel of Unisys Corp.: "You're really paying them for inefficiency." Hendry and others are imposing alternative fee structures based on performance rather than hours of effort. They include flat fees and discounted rates with bonuses for good results.

All this has forced firms to hold the line on compensation. This spring, Jones Day froze salaries for first-year associates at $83,000 in New York and $74,000 in its other offices. And Skadden, Arps, Slate, Meagher & Flom told associates that they had to pick between bigger salaries or pension benefits.

Firms that cater to Wall Street are taking even more drastic measures. Willkie Farr & Gallagher, Shearson Lehman Hutton Inc.'s firm, and Cahill Gordon & Reindel, one of Drexel Burnham Lambert Inc.'s top firms until it went bankrupt, are firing associates. Another Wall Street stalwart, Milbank, Tweed, Hadley & McCloy, is slowing hiring and weeding out partnership candidates faster.

'A NEW LAWYER.' Most attorneys say these changes are more than quick fixes to temporary market conditions. "There's a new lawyer that clients are looking for," says Boykin of Chadbourne & Parke. "You've got to be more attuned to client's concerns, more attuned to client's needs, and able to figure out the client's business."

At the 65-lawyer firm of Beveridge & Diamond, partners recently decided to forgo billing-rate hikes and use their low fees as a marketing tool. Chadbourne & Parke has hired accountants to teach associates how to read spreadsheets, and professors to improve their prose. It has even retained Robert H. Waterman Jr., co-author of *In Search of Excellence*, to help the firm remain a congenial place as law practice becomes more cutthroat.

Slowly, the message is sinking in: It's no longer enough to be a good lawyer; you have to offer better service at a lower cost. "Ten years ago, if you asked for a bill breakdown, the major firms would tell you to stuff it," says Carl Liggio, Ernst & Young's general counsel. "Now, you get whatever you want."

By Michele Galen in New York, with Tim Smart in Washington and Geoff Smith and Keith Hammonds in Boston

THE LATEST LAW COURSE: MARKETING 101

Once a month, marketing consultant Julie Paradise meets with Irving B. Levinson and seven other lawyers from the Chicago office of Rivkin, Radler, Bayh, Hart & Kremer. With video cameras rolling, partners and associates practice selling services to clients. In one scenario, two of them pitch their trial skills to a company counsel who has previously used the firm only for corporate work. In other sessions, Paradise discusses such topics as how to get in the door of a new company and how to exploit a chance meeting on an airplane with an executive. "It's just a variation of the old-time sales meeting," says Paradise.

But for the lawyers, it represents a bold new step into the world of competitive business. Traditionally, they had shunned overt marketing efforts because of ethical restrictions and professional biases. But the rules have eased. In today's saturated legal market, firms are looking for every advantage they can find.

BROCHURES. "Everybody's doing it," says Gary L. Fairchild, managing partner at Chicago's Winstrom & Strawn, which hired a partner specifically to spur rainmaking. And firms are spending more money on it. In a survey last February of 150 firms, the newsletter *Of Counsel: The Legal Practice Report* found that marketing expenses totaled up to 4% of gross revenues. In its past two surveys, 1% or less was the norm. The spending has spurred a cottage industry of legal marketers. Founded in 1986, the National Law Firm Marketing Assn. has jumped from 50 members to 620.

Firms vary a lot in how they define marketing and in how aggressively they'll go after business. Tharrington, Smith & Hargrove in Raleigh, N. C., is considering adopting the now-common practice of having a company brochure, says partner Wade H. Hargrove. Chicago's McDermott, Will & Emery recently hired a director of practice development. Oppenheimer Wolff & Donnelly in Minneapolis sponsors public-service programs and announcements on TV and has advertised its investment in a local business magazine.

CONSULTANT JULIE PARADISE: LET'S GO TO THE VIDEOTAPE

Marketing experts say the first selling job they often have to do is on the partners who resist admitting they need help and resent having to defer to nonlawyers or nonpartners. "Every genius partner 'knows' marketing and will tell the marketers how to do it," says Bruce W. Marcus, a consultant.

Still, firms continue to devise new ways to drum up business. To help attract Japanese clients, Detroit's Raymond & Dillon hired a marketing director from Japan. New York's Cleary, Gottlieb, Steen & Hamilton hired a former magazine reporter to help generate press attention. And Davis Polk & Wardwell in New York hired a former public relations consultant to help change the firm's stuffy image.

At Winston & Strawn, marketing partner Loren Wittner, a Harvard law graduate with 16 years of legal experience and 9 years of public relations work, is concentrating his efforts on service. Wittner's plans include surveying Winston & Strawn's top clients for feedback on the firm and hiring trainers to coach lawyers in selling techniques. "Clients are waking up to the fact that they can go elsewhere," says Wittner. "You can pick up a competitive edge by responding to the market." And if it takes some show biz, the legal mind today doesn't much mind.

By Michele Galen in New York

ve years
hard work
d we're
ill in the
ailroom.

% of Mita
piers sold
the last five
ars are still
ing strong.
r details call
00-ABC-MITA.

mita

For more information write: Mita Copystar America, Inc.
P.O. Box 599, West Paterson, NJ 07424

Name Company / Title

Address

City / State / Zip Phone

B6 Mita. All we make are great copiers.™

© 1990 Mita Copystar America, Inc.

WE MUST CUT THE DEFICIT NOW: HERE'S HOW TO DO IT

Business Week's plan will slash $643 billion over five years—and might produce a surplus in 1995

If nothing is done to attack the budget deficit, the public debt of the U. S. government will top $4 trillion by 1994, twice what it was in 1988. Interest payments alone will exceed $300 billion that year—swallowing more than half of all individual tax receipts.

Over the long term, the Treasury's debt will put an intolerable burden on future generations. In the short run, the budget deficit has paralyzed the government. The White House and Congress spend virtually the entire year talking about how to meet an artificial deficit target. Each year, they find a way to squeak by without actually cutting spending or raising revenues. Meanwhile, the nation's critical needs—educating new generations, rebuilding a decaying infrastructure, and ensuring the competitiveness of the U. S. economy—go largely unmet.

FALSE HOPE. There's no magic in a balanced budget. A deficit of around 1% of gross national product, or about $75 billion by 1995, is perfectly tolerable. But today, the deficit is running at about 4% of gross national product—and, contrary to earlier predictions, is not declining. The situation would be even worse except for the huge annual surpluses being generated by the Social Security trust fund—$52 billion this year and as much as $80 billion by fiscal 1995.

In the late 1980s, the deficit seemed to be coming under control. Two things went wrong. First, many of the deficit-cutting measures approved in past years were flimsy accounting gimmicks or one-shot deals. And then there are the thrifts. The government will have to shell out at least $150 billion in 1990 dollars to pay off depositors in failed savings and loans. The S&L nightmare shows what happens when a major shock hits a badly unbalanced budget. Recession would be far worse, because tax receipts would tumble.

That is why it's time to get the deficit under control, once and for all. Fiscal prudence demands that projected deficits be cut by a minimum of $500 billion over five years. And even greater reductions can be made without harming the economy or killing off vital services.

The key to massive deficit reduction is the dramatic decline in the military threat to the U. S. This makes enormous reductions in defense spending both possible and necessary. Next, "entitlements" can be cut without harming those who rely on government programs for most or all of their income. Such income transfers to the middle class, especially programs for the elderly, have been largely untouched in recent years. Other targets for deficit reduction: Big science and a wide array of government subsidies to businesses.

Finally, taxes must be raised—but as little as possible, and in a way that discourages consumption, not investment. The resulting tax system should be at least as progressive as the existing code.

Here's how to trim the deficit by $53 billion next year and by $643 billion between now and 1995:

■ **The cold war is over—we won.** We should cut military spending by 25% over the next five years. For starters, the U. S. should withdraw two-thirds of

330,000 troops stationed in Europe. rall, the Army could deactivate 14 of 32 divisions, relying more heavily on erves.

he Navy's fleet could be cut by about -third, to 400 ships. This would re- re mothballing four creaky aircraft riers, four barnacled battleships, and ost of smaller craft. Twenty of the rent 36 ballistic-missile submarines leave the U. S. with a more-than- quate nuclear deterrent. The Air ce could live without 16 of its 36 ve fighter wings. Such big-ticket pro- s as the B-2 Stealth bomber, the C-17 nsport, and the Advanced Tactical hter, should be scrapped.

he Pentagon should continue re- rch and development on new technol- es, including a modest Strategic De- se Initiative. And the armed services uld prepare for the post-cold-war ld by building lighter, mobile forces. *e-year savings: $250.7 billion.*

lake the aged pay their share. By 5, nearly one of every three dollars nt by the government will go to the erly, mostly for Social Security and dicare. While no one wants to balance budget on the backs of the old, sig- cant deficit reduction is impossible hout a contribution from rees.

he trick is to reduce nding on seniors in a way t protects the elderly r. One way is taxing a ger share of Social Secu- benefits. If 85% of bene- became taxable—a atment roughly analo- s to private pensions— Treasury would raise an ra $54 billion by 1995. An anded standard deduc- could ensure that the is limited to those who afford to pay.

he soaring cost of medi- e should be trimmed. sing the $75 annual de- tible to $200 and increas- the monthly premium so t it covers 30% of federal ments to doctors would e $35.1 billion by 1995. A xamination of eligibility needed in veterans' bene- programs, which an ag- population is rapidly king a parallel program aid to the elderly. *Five- r savings: $99 billion.*

nd this gravy train. De- e years of pressure on cretionary spending, shington's pork barrel l contains plenty of fat. e government subsidizes ter, power, grazing, and timber, especially in the West. Washington gives away space on the radio spectrum. Companies now benefiting should pay market prices for these government goods and services.

Farmers, too, get a break, with the government subsidizing everything from wheat to sugar to angora goats. Too much goes to agribusiness—and consumers foot the bill for higher prices. A reduction in price supports is long overdue. *Five-year savings: $26.7 billion.*

■ **Big science.** Federal sponsorship of the superconducting super collider is a particularly expensive kind of public-works spending. Far better for the U. S. to become a partner in existing particle accelerators, such as Europe's CERN.

NASA's planned space station could be a much bigger boondoggle. Given the agency's recent performance, there's reason to doubt that the project, which ultimately could cost $40 billion, would ever perform as intended. The space agency should also shelve its plan for manned stations on the moon and Mars. *Five-year savings: $8.6 billion.*

■ **Read our lips—new taxes.** The bulk of deficit reduction should come from spending cuts, but additional revenues are also needed. No increase in tax rates is desirable—or necessary. But the wealthy should pay their fair share. One way to accomplish this is to put a ceiling on total itemized deductions. Capping deductions at $75,000 would raise $44 billion over five years, almost all of it from taxpayers with annual incomes of more than $250,000.

The changes should be designed to reduce the tax code's bias in favor of consumption. One route: increase federal excise taxes on beer, wine, and tobacco products. Better public health may be a pleasant side effect.

Then, more important, impose a new levy on all forms of energy equivalent to a 15¢-per-gallon tax on gasoline. This tax would yield $99.5 billion by 1995. Unlike a gasoline tax or an oil-import fee, a comprehensive energy tax falls evenly on all regions of the country. And by raising energy costs, the levy could help reverse a disturbing trend away from conservation.

Unfortunately, these consumption taxes would hit the poor and the working class hardest. To ease the burden, the earned-income tax credit, which provides cash payments to working-poor families, should be increased. And the standard deduction should be raised to help moderate-income taxpayers. *Five year savings: $167.5 billion.*

If all these proposals were enacted, the total deficit reduction over the next five years would be $552.5 billion. Reduced borrowing over the period would trim the government's net interest cost by an additional $90 billion. That's probably enough to generate a budget surplus by 1995.

Wiping out the deficit, however, isn't really an end in itself. The real goal is to end the annual obsession with deficit reduction and to give Congress and the White House room to fashion a rational fiscal policy. The U. S. has vast unmet needs. But meeting them is impossible unless the deficit is brought under control. It's long past time for Congress and the President to muster the political courage to get on with the job.

MAKING THE DEFICIT GO AWAY: THE BUSINESS WEEK PROPOSAL

	Fiscal 1991 gain or loss	Five-year savings
TAX CHANGES	Billions of dollars	
Limit itemized deductions to $75,000	$4.0	$44.0
Impose broad-based energy tax	12.0	99.5
Raise excise taxes on beer, wine, and tobacco and extend the existing telephone tax	11.5	64.0
Increase earned-income tax credit and standard deduction to offset impact of tax hikes on the poor and lower-middle class	−5.0	−40.0
TOTAL TAXES	**$22.5**	**$167.5**
SPENDING CUTS		
Increase medicare copayments and premiums	$1.9	$35.1
Restrict eligibility for veterans' benefits	1.7	9.9
Tax 85% of Social Security benefits as ordinary income	6.6	54.0
Reduce farm target prices by 3%	0.3	11.2
Charge business market rates for the use of public assets	5.5	15.5
Cancel the manned space station and the super collider	1.0	8.6
Phase down defense spending to reduce outlays by 25% by 1995	11.5	250.7
Resulting savings in interest expense	2.1	90.0
TOTAL SPENDING	**$30.6**	**$475.0**
GRAND TOTAL DEFICIT REDUCTION	**$53.1**	**$642.5**

DATA: CONGRESSIONAL BUDGET OFFICE, HOUSE BUDGET COMMITTEE, HOUSE WAYS & MEANS COMMITTEE, DEFENSE BUDGET PROJECT

Announcing
A Brighter
Economic
Indi

Retractable
Bright
Convenient
Sleek
CLICK
HI-LITER™ MARKERS
© 1990 Dennison Stationery Products Company

LEE IN CHARACTER IN HIS LATEST FILM, *MO' BETTER BLUES*, TO BE RELEASED IN AUGUST

SPIKE LEE DOES A LOT OF THINGS RIGHT

He's a filmmaker, a TV-commercial director, and a savvy marketer

Actor-director Spike Lee doesn't keep his films' most flattering roles for himself. "I don't want to be a hero in my own movies," he says. In his acclaimed 1989 film, *Do the Right Thing*, the 33-year-old Brooklyn filmmaker cast himself as an indolent pizza delivery man who ends up sparking a race riot. In his newest film, *Mo' Better Blues*, Lee's role is even more self-deprecating: He plays a loyal but financially inept business manager for a jazz band.

In real life, Lee is certainly loyal: His father, brother, and sister all worked on *Mo' Better Blues*, which opens on Aug. 3. But financially inept? No way. Four years after borrowing $175,000 to make his surprise hit, *She's Gotta Have It*, Lee has become a multimedia star and marketing phenomenon. In one hectic year, he has launched his latest movie, written his fourth book, directed a $20 million ad campaign for Levi Strauss & Co., and opened a store in Brooklyn to sell merchandise tied to his films (table).

CRITICS RAVE. At the heart of Lee's success is a carefully contrived persona as a hip, irreverent celebrant of urban black culture. "You get the impression that Spike is a devil-may-care kind of guy," says Philip B. Dusenberry, chairman of ad agency BBDO New York. "But he's also a shrewd self-promoter."

Shrewd indeed: In a short time, he has become easily the nation's most successful black director. After the success of *She's Gotta Have It*, Lee went on to make two more movies, *School Daze* and *Do the Right Thing*. While *School Daze* got tepid reviews, *Do the Right Thing* won raves, earned $28 million at the box office, and prompted widespread controversy about the film's message.

Still, Lee knows that the vast majority of Americans don't recognize him either as an *auteur* or a trenchant social critic. Says Lee: "A lot of people probably don't even know I'm a filmmaker." Instead, Americans are familiar with his alter ego, Mars Blackmon, the fast-talking street kid who made his first appearance in *She's Gotta Have It*. It's Mars who appears with superstar Michael Jordan in the high-profile campaign for Nike Inc.'s Air Jordan sneakers.

Those ads, which Lee also directs, mark his successful transition to commercial direction—an achievement that few movie directors can match. The ads used Lee's style of choppy editing and

ng camera work. The effect, says ·ge Lois, chairman of agency Lois/ is "gritty and spunky."

ke credits the campaign with help- t gain market share against archri- Reebok International Ltd. Indeed, e think Lee may be doing too good a He was criticized earlier this year nelping to make pricey Air Jordans a status symbol in the inner city young people were reportedly at- ng or stealing from each other to a pair. Lee dismisses such charges thinly veiled racism."

AKING BACKWARD. Lee landed the of directing the Levi campaign after s groups of 16- to 24-year-olds re- ded enthusiastically to his voice- wisecracking. Says Dan Chew, mar- g manager for Levi: "Across the d, kids were able to identify who behind the voice." The ads will have g people telling Lee about strange gs that happened hem while they wearing Levi's jeans. To gather e anecdotes, he ad agency Foote, & Belding pro- d a teaser ad so- ng suggestions viewers. In the Lee barks: "Hey! want to make a 's 501 commercial t you."

ore than 800,000 le responded to s unorthodox cast- call. In one of the t commercials will air in Au- , two Brooklyn hs on the Coney d boardwalk dem- rate their ability speak backward e Lee quizzes on how it's done. will appear as s this fall in a -sponsored public- ice campaign urg- young people to in school. And in ber, he'll edit an e of *Spin*, a rock ic magazine.

ke any astute ie marketer, Lee an selling mer- dise tied to his s shortly after the ess of *She's Gotta e It.* Starting with nformal mail-order ation, Lee's stu- Forty Acres and Mule, now sells $50,000 worth of *Do the Right Thing* T-shirts and Brooklyn Dodgers baseball caps every month. His marketing director, Pedro Barry, says Lee decided to open a store after customers began turning up at the mail-order office looking for merchandise. The shop, called Spike's Joint, is housed in a renovated brownstone near his studio.

Neither Nike nor Universal Pictures, which distributes his movies, will say how much they pay Lee. But entertainment mavens in New York and Los Angeles figure he pulls in $2 million to $4 million for each film, plus a share of the box office. He's probably paid at least $25,000 a day for shooting the Nike and Levi ads. So by producing 11 spots in 1990, he should make another $500,000.

Lee makes no apologies for his pursuit of the dollar: "Without money, you have no control. Without control, you have no power," he says. "I'd rather have black America wearing *Do the Right Thing* T-shirts instead of *Dick Tracy* or *Batman* T-shirts." That sentiment is echoed by other blacks: "Who says white folks have a patent on being commercial?" asks John Thompson, coach of the Georgetown University basketball team. Thompson, who will also appear in the Nike public service campaign, says: "A role model of somebody who makes money honestly and aggressively is very valuable."

Lee may also be setting an example for companies that don't use black spokespeople. Samuel J. Chisholm, president of Mingo Group, a black ad agency, says Lee is the first black ad pitchman whose appeal is based on a celebration of his color. He says television star Bill Cosby succeeds as a marketer in spite of his blackness, not because of it. Spike Lee's marketing is not only profitable but it's also helping to draw black culture further into the commercial mainstream.

By Mark Landler in New York

SPIKE'S JOINT CARRIES MERCHANDISE THAT'S TIED TO LEE'S MOVIES

THE SELLING OF SPIKE

Current ventures of Spike Lee's company, 40 Acres and a Mule

FILMS *Mo' Better Blues* will be released on Aug. 3. *Jungle Fever* starts production in August

BOOKS Simon & Schuster has published the companion volume to *Mo' Better Blues*

AD CAMPAIGNS Lee directed Levi Strauss's new $20 million 501 Jeans campaign, airing July 30. He continues to direct Nike's Air Jordan ads

MERCHANDISE A new store supplements a mail-order business in T-shirts, caps, and other memorabilia from Lee's films

DATA: COMPANY REPORTS

1	Exxon
2	General Motors
3	Mobil
4	Ford Motor
5	IBM
6	Texaco
7	E.I. du Pont
8	Standard Oil (Ind.)
9	Standard Oil of Cal.
10	General Electric
11	Gulf Oil
12	Atlantic Richfield
13	Shell Oil
14	Occidental Petroleum
15	U.S. Steel
16	Phillips Petroleum
17	Sun

27 million Americans can't read. And guess who pays the price.

Every year, functional illiteracy costs American business billions.

But your company can fight back...by joining your local community's fight against illiteracy. Call the Coalition for Literacy at toll-free **1-800-228-8813** and find out how.

You may find it's the greatest cost-saving measure your company has ever taken.

A literate America is a good investment.

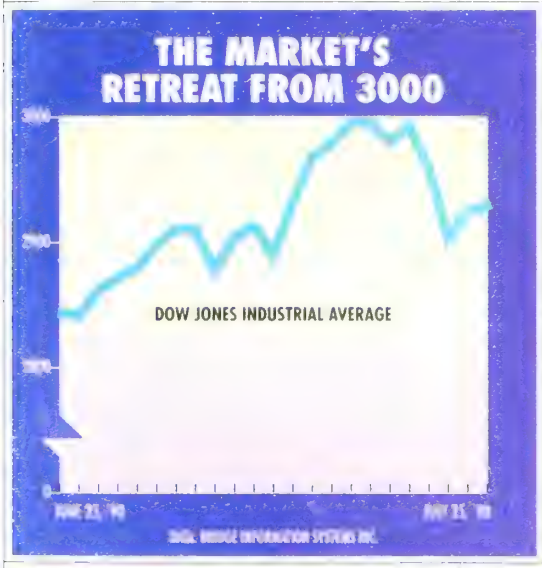
Ad Council Coalition for Literacy

PROFIT PAIN MAKES INVESTORS FLINCH

And companies are talking down earnings for the second half, too

As the Dow Jones industrial average surged in the past few months, buyers thought they had it all figured out. The profit picture would brighten in the second half of 1990. Just as important, interest rates were bound to lighten up, and that meant that stocks had only one way to go—up. Then, just days after the market came within a hair's breadth of closing above 3000, investors lost their faith—and some their money.

First, an incessant string of disappointing earnings reports cast doubt on the profit pickup. Then, investors suddenly realized that with rising interest rates overseas and deadlocked budget talks at home, interest rates were unlikely to fall. On July 20, the Dow was up a few points and poised for a rousing close, when Texas Instruments Inc. dropped a double bombshell about 30 minutes before the closing bell: worse-than-expected second-quarter earnings, and suggestions that the third quarter would be a bust, too. That helped push the market into a tailspin that lopped 35 points off the Dow in minutes.



Investors and traders had the weekend to stew, and on Monday morning, they voted with their feet. The Dow plunged 108 points in a little more than an hour's time, conjuring up images of past crashes. The free-fall was severe enough to trigger "circuit breakers" designed to dampen violent market swings. Program trading orders at the New York Stock Exchange were delayed and shunted off to a computer holding queue. And trading in stock-index futures shut down at the Chicago Mercantile Exchange at 10:34 a.m. (New York time), when the Standard & Poor's 500 index futures had dropped 12 points, and resumed 16 minutes later when traders started to bid up prices.

By the end of the day, the Dow cut its loss almost in half, to close at 2904. Still, it was the worst day on Wall Street since the 79-point drop on Jan. 12. Now, instead of looking beyond 3000, investors are trying to contain damage and fathom where the bottom lies. "The psyche of the market is lousy," says Steven A. Kroll, president of SLH Asset Management. Kroll says the market will face rough seas, with the Dow falling as much as 250 points over the next three months.

BUGABOO. Even though many investors saw doomsday in the market's tumble, there's a good case to be made that earnings expectations just got too far ahead of reality—and had to be brought back to earth. That means the market can advance, but at a slower pace than many had hoped. Indeed, the Dow recouped 18 points on July 24 and 8 points on July 25 to close at 2931. Yet, as the past few days show, companies that disappoint investors are likely to see their stocks pounded, no matter what.

In part, what's bugging the market are "negative earnings surprises"—Street talk for a disappointing profit performance (table). "It's like having a land mine inside your portfolio," says J. David Mills, a senior vice-president and mutual fund manager for The Boston Co. "You worry where the next one will go off." One of Mills's was United Telecommunications Inc., which shocked the

market with a paltry 18¢-a-share profit for the quarter. Analysts polled by Zacks Investment Research Inc., a company that tracks earnings estimates, were forecasting 58¢ per share. The stock plunged nearly $9 in one day.

But earnings shortfalls have been a bugaboo since last year. Stocks were sold off sharply in October, January, and April—all months when the prior quarter's earnings were reported. And after each sell-off, the market went on to new highs. Although the reporting period isn't over yet, only about 52% of second-quarter reports are negative surprises, vs. 58% for 1989's fourth quarter and 54% for the first.

But what's frightening the market is that in reporting profits, companies are talking down earnings for the second half. "The second-quarter reports aren't that bad," says Benjamin Zacks. "It's what company after company says about the rest of the year." Even McDonald's Corp., to which investors flocked over the past 12 months because of its reputation for steady and reliable double-digit earnings growth, startled investors. Second-quarter earnings came up only a penny shy of expectations, but the company reported that per-store sales were sagging in the U. S., largely because of discounting by competitors. The stock dropped $4.50, or 12%, in just two days (page 30).

The McDonald's episode also cast doubt on investing in growth stocks, a strategy that has been popular and profitable for institutions for the past year. Many issues hit in the sell-off were growth stocks that met or exceeded expectations, such as Philip Morris Cos. and Bristol-Myers Squibb Co.

COMPUTER WEAKNESS. The dimmer profit picture takes in a wide swath of industries. Dow Chemical Co. dropped nearly $6, some 10%, on July 24, when it disappointed investors on second-quarter earnings and said weak demand and new capacity would make the second half weaker then expected. Capital Cities/ABC Inc., too, fell short and said 1990's third-quarter profits might not top 1989's. The stock dropped 55½ points, or 9.4%. Earnings at Reuters Holdings PLC shot up 23% in the first half, but the stock dropped 10 points, or 14.5%, when it warned of a softer second half.

The sell-off seemed to derail this year's boom in high-tech stocks. After years in the doghouse, these stocks blossomed—and even after a 6% pullback, IBM is still one of the Dow's leading gainers this year. But there are signs of weakness in the computer business. Storage Technology Corp., the best-performing Big Board issue for the first six months of 1990, beat the analysts' second-quarter profit expectations handily. But company officials also noted that demand for its products was softening in the U. S.—though it still looked good in Europe—and the stock collapsed nearly $9, to close at 25¾. "This market doesn't tolerate disappointment and was very punishing," sighed Storage Tech Vice-President Michael Klatman.

Some of the pain in the profit picture could be mitigated by a drop in interest rates. That would lower financing costs for companies and make stocks more attractive than fixed-income securities. But Wall Street has all but given up on that front. "We don't think interest rates are going anywhere," says Ian MacKinnon, who runs fixed-income funds for the Vanguard Group. The reasoning is that the economy is still growing—and so is inflation. Twice in recent weeks, Federal Reserve Board Chairman Alan Greenspan told senators and congressmen that the economy is not heading into recession. True, the central bank let short-term rates drop 0.25 percentage points, but that's not enough to make much of a difference in stock prices or bond yields.

There's a more encouraging view of the sell-off that may be closer to the mark. The market pullback was to be expected after a speedy 350-point rise. "Some stocks ran up in three months what they should have done in over a year," says Donna Calder, who manages several Oppenheimer mutual funds. Adds Carmine Grigoli, chief equity strategist at CS First Boston: "Investors were

WHERE EARNINGS WERE WORSE THAN EXPECTED

Company	Forecast*	Reported**
	Earnings per share	
ASHTON-TATE	$0.03	$-0.47
ADV. MICRO DEVICES	0.08	-0.17
SANTA FE PACIFIC	0.15	-0.01
COMPUTER ASSOCIATES	0.14	0.02
TEXAS INSTRUMENTS	0.08	0.02
MENTOR GRAPHICS	0.27	0.08
UNITED TELECOMM.	0.58	0.18
HASBRO	0.28	0.15
WHITMAN	0.40	0.25
POLAROID	0.67	0.45
MORGAN STANLEY	2.03	1.44
SEARS	0.97	0.69
DOW CHEMICAL	1.87	1.34
CAPITAL CITIES/ABC	9.05	8.19

*Consensus of analysts' forecasts for second quarter 1990

**From continuing operations only, second quarter 1990

DATA: ZACKS INVESTMENT RESEARCH INC.

getting complacent, and this [drop] put some fear back into them."

Some doubt the damage was all that bad, outside growth stocks with high price-earnings ratios and the technology sector. After all, the recent rally was not broad-based. When the Dow was nearing 3000, nearly half of all stocks traded at least 30% below their 52-week highs. And while the p-e ratio of the Standard & Poor's 500 was then the highest since 1987, "we could still find good companies selling at attractive prices," says William Kapner, managing director of Justin Asset Management Inc.

Those stocks, said Kapner, weren't hurt much, because they weren't bid up a lot this year, and they still offer good opportunities. His choices include telephone companies such as GTE, Southwestern Bell, and Pacific Telesis, retailers like J. C. Penney and Tandy Brands, and even the media giant Gannett Co. And Oppenheimer's Calder notes a pullback in high-tech stocks is a fairly predictable summer move. It's just that this year's was particularly bad. "You can't paint all high-tech stocks with a broad brush," she says. "Yet there's a lot of indiscriminate selling going on."

Despite the rising fear factor, stocks don't have to head south. To the contrary, the economy is still growing, and profits will grow also. "It's not wild growth, but it's not a wild recession, either," says Bill Harnisch, president of Forstmann-Leff Associates, a money-management firm. He says consumers are spending, rail traffic is up, and even auto production offers a pleasant surprise. "We like what we see."

> Despite rising fears, stocks don't have to head south. The economy is still growing, and profits will grow also

And there's still money to buy stocks. Institutional and mutual fund coffers held unusually high cash levels even before the sell-off and no doubt have even more right now. Investor sentiment is worsening, and things will probably get so gloomy over the summer that a little positive news—which the market has been brushing off of late—could go a long way toward a market recovery.

The stock market has suffered severe jolts before—and is apt to again. Yet each time, it has managed to come back. And it will again.

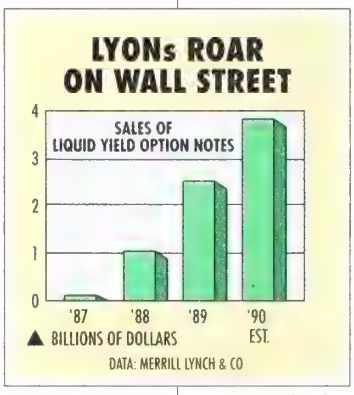
By Jeffrey M. Laderman in New York, with bureau reports

MARKETS & INVESTMENTS

IT'S A BOND, IT'S A STOCK, IT'S . . . A LYON?

Zero-coupon bonds that can be switched into equity are hot

Andrew D. Finger laughed the first time a Merrill Lynch & Co. broker tried to sell him a LYON. "I thought somebody had simply thought up a clever acronym," says the Cleveland accountant. But he got serious after doing research on Merrill's Liquid Yield Option Note, a variant on an old-style convertible that promises the guaranteed return of a zero-coupon bond and the potential capital appreciation of a common stock. In the past two years, Finger has put more than $100,000 in 12 LYONs.



Investors such as Finger are making zero convertibles—where the holder buys a bond that can be switched into equity—one of the hottest products on Wall Street. Merrill says that of the $1 billion raised in the largest zero convertible so far—Walt Disney Co.'s LYON in June—60% of the securities were gobbled up by 50,000 Merrill individual investors, with the rest bought by 200 institutions. In 1990, investors are expected to buy almost $4 billion worth of zero convertibles, compared with $5.2 billion from 1985 to 1989.

Here's how a zero convertible works: Investors buy the zero-coupon bonds at a large discount from face value. They get zero interest payments until the bonds mature, typically in 15 to 20 years, when the bonds are redeemed at face value. Because they are convertible into stock, LYONs accrue interest at a lower-than-market rate—now about 7.25%.

HANDSOME FEES. The attraction for investors is that a LYON is convertible into stock at any time. If the stock should shoot up, the LYON suddenly becomes a lot more valuable. In the case of Morrison Knudsen Corp. bonds issued in April, investors paid $343 for one LYON when the stock was trading at 49⅛. The company gives an investor the right to convert the LYON into 6.2 shares of Morrison Knudsen stock at any time. With the stock trading at 54⅜ on July 24, the LYON was selling at $380. Indeed, the LYON has risen slightly more than the stock, 10.8% vs. 10.7%, because interest rates have fallen since April.

Merrill has underwritten more than $6.5 billion of the $7.5 billion in zero convertibles issued since 1985, and it has registered the term "LYON." But Salomon Brothers Inc. and First Boston Corp. are becoming competitors.

For the brokerage houses, these instruments can mean handsome fees. Disney paid Merrill $23 million. And issuing corporations can raise money from the public at below-market rates and also defer the interest payments for years.

MAULED. The product isn't universally loved, though. Critics say buyers can be disappointed. "From the issuer's point of view, it's almost a no-lose proposition," says Robert Willens, a senior vice-president of Shearson Lehman Hutton Inc. "The stock has to keep going up at a rapid rate for investors to profit." He points to Du Pont Co.'s issue, where to profit from the equity play, the stock has to grow at a 13% compounded rate. If it doesn't go up, all the investor is left with is a below-market interest rate.

Indeed, one LYON has already mauled investors: an early zero convertible sold by Merrill in 1985 for Lomas Financial Corp., which is now in Chapter 11. That LYON has tumbled to $65 from $250.

Merrill's own LYON, also issued in 1985, is an example of how the investor is protected even if the stock falls. While Merrill's stock has declined by 33% in the past five years, its LYON has risen from $200 to $291 because Merrill, unlike Lomas, is sure to redeem the bonds at par, $1,000, when they mature in 2006.

The Street has grumbled for years about individuals' reluctance to buy common stocks. But the success of the Street's zero convertibles is proof that innovation plus a little protection can indeed attract the small investor.

By Jon Friedman and Larry Light in New York

AHLMANN IN THE PITS: STOTLER'S WOES ARE CASTING A PALL OVER THE WHOLE INDUSTRY

HIS TRADER'S FUTURE OOKS BEARISH

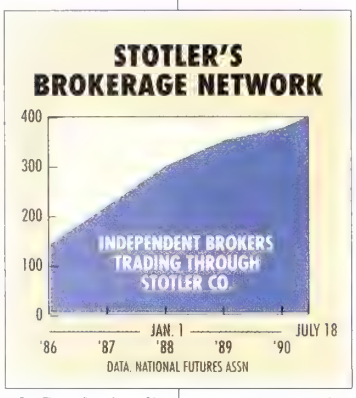
big publicly owned commodities firm, Stotler, is struggling

arsten Mahlmann started his career in commodities trading by buying and selling wheat in the ash grain-trading room at the Chicaoard of Trade, earning himself the ame "Cash." But these days, that ker has taken on an ironic overtone. ortage of cash threatens the very val of Stotler Group Inc., where mann serves as chairman. On July e firm said it failed to meet about 000 in debt payments and was clos- s primary business, Stotler & Co., a odities broker.

e crisis is not Stotler's alone. As the publicly owned commodities trading Stotler could have been a trailblaz- r the whole industry, using money its stock sale in 1988 as an equity that would fuel its growth. Instead, er has become an object lesson in perils of overexpansion. Its experi- could haunt the industry for years.

RUDENCE. No commodities firm ed better situated than Stotler to the way toward expansion. In 1987, lmann became chairman of the d of Trade, a position reflecting the e of prudence and conservative agement the firm had cultivated in a -burly business. That image also ed the company raise $4.4 million ugh its public stock offering the fol- ng year even though trading was . In an industry where capital stipu- ns set by regulators and exchanges determine how much business a company can take on, the money was Stotler's insurance that it would be ready when the market picked up again.

Things worked out differently. Stotler executives, including Mahlmann, did not return phone calls. But regulators and industry executives familiar with Stotler, as well as documents filed with the Securities & Exchange Commission, tell the story of a firm whose expansive reach far exceeded the capital it could grasp. Since 1986, it has signed up about 250 independent brokers who agreed to clear trades through Stotler. The company also broadened its operations a year ago by purchasing R. G. Dickinson & Co., a Des Moines securities dealer, despite the fact that Dickinson lost $1.4 million in 1988.



The expansion stretched Stotler's finances. A commodities firm's capital must amount to at least 4% of the funds customers invest with it. But Stotler's own resources were insufficient to match its growth. By July, Stotler's customer assets had grown some 10%, to more than $290 million, since late 1988, despite the slow growth in commodities trading since the 1987 stock market crash. But Stotler Group's earnings stood at $221,000 last year, down 61% from 1988. To catch up, Stotler borrowed heavily. It issued more than $11 million in commercial paper since May, 1989, boosting its total debt above $30 million.

Regulators suspected that Stotler was thinly capitalized as early as 1987. But it wasn't until early July that they took action. That's when the SEC, as part of its oversight of publicly traded companies, discovered that the parent company was making loans to its brokerage operation, while assuming some of the subsidiary's liabilities. The capital infusion topped $3 million. The SEC disallowed the transfers, precipitating the capital crisis at Stotler's brokerage. By July 15, the CBOT ordered the firm to find new capital. Briefly, it looked as if Stotler's crisis would pass when a Taiwanese firm offered $10 million in a bailout deal. But that fell apart.

STOCK PLUNGE. On July 24, Stotler & Co. withdrew as a member of all major futures exchanges. And its stock has plunged to around 3 from 13¾ a year ago. Mahlmann, Stotler's largest shareholder, with a 10% stake, has seen the value of his shares dwindle by $2.2 million. Moreover, Stotler Group says it will have to renegotiate its debt. Indeed, $7.6 million of its debt obligations come due before the end of August.

Still, rival firms hardly are reveling as Stotler reels. Other independent firms say major customers are reviewing their status with an eye to switching their futures business to big New York brokerage houses. Customers "are going to look very carefully now," worries Gordon Linn, president of Linnco Futures.

Moreover, many executives in the tight-knit commodities industry suspect that the SEC could use the incident to strengthen its regulatory reach into the financial futures markets. The Commodity Futures Trading Commission now has jurisdiction over futures trading, but it has been criticized by some members of Congress for lax enforcement. The CFTC and SEC deny that there is a turf battle brewing over Stotler. Both agencies say they are cooperating with the CBOT.

Eventually, the 51-year-old Mahlmann may have more than financial problems. Even though he has cut his role at Stotler while running the Board of Trade, some board members blame him for the firm's missteps. And while he's still popular in the pits, some members are saying it's time he stepped down.

By David Greising in Chicago

RANIERI: TOUGH GOING IN THE HEART OF TEXAS

United Savings is growing fast—but big returns are elusive

Along with Michael R. Milken and a few other financial innovators, Lewis S. Ranieri helped usher in the go-go 1980s on Wall Street. While Milken's milieu was junk bonds, Ranieri's was the unassuming home mortgage. As a superstar trader at Salomon Brothers Inc., he bundled home loans together into widely traded securities backed by the loans, helping to create an $800 billion market. Along the way, he bought and sold billions of dollars' worth of mortgages from thrifts, fueling Salomon's money machine. So when he left Salomon in 1987 after a power struggle and bought a busted Texas thrift, he knew what he was getting into.

Or so he thought. Since buying United Savings Bank in late 1988, Ranieri has struggled to whip it into shape, selling off nearly three-quarters of its $4 billion in money-losing assets, including real estate, junk bonds, and even some $2 billion of mortgage-backed securities. While Ranieri is making headway, United's $28 million profit last year came mostly from the government subsidies that prop up yields on the wounded assets he inherited. And the odds are growing that regulators will renegotiate the deal.

SIREN SONG. Undaunted, Ranieri is pushing ahead in Texas at breakneck speed. Since January, he has snapped up another three thrifts with 36 branches and more than $2 billion in deposits (table). He also bought a $2 billion-a-year mortgage-banking business. To run United, he hired a rising star at Chemical Bank, Kenneth H. Thorn. The two want to turn United into a consumer-banking power in Texas.

Ranieri, 43, a cigar-chomping native of Brooklyn, rose from Salomon's mail room to become vice-chairman. He didn't plan on jumping into the thrift fray. But after a confrontation with Chairman John H. Gutfreund, Ranieri left Salomon. He retreated for a spell to his Florida resort cottage, but soon the siren song of distressed thrifts was more than the opportunist in Ranieri could resist. By early 1988, he had rounded up the likes of Olympia & York, Prudential Insurance, and Westinghouse Credit to help him invest $450 million in banks and thrifts. "With all the dislocation," he says, "I felt there was a chance for some big returns."

WILL RANIERI HAVE TO BEEF UP CAPITAL?

RANIERI'S TEXAS THRIFT SPREE

Thrift / Date acquired	Deposits (Millions of dollars)	Price (Millions of dollars)
UNITED SAVINGS Dec. 30, 1988	$3,360	$200
AMERIWAY SAVINGS May 14, 1990	218	1
MURRAY FEDERAL S&L June 8, 1990	1,150	19
METROPOLITAN FINANCIAL FEDERAL S&L June 22, 1990	719	15

DATA UNITED SAVINGS ASSN

So far, though, United's returns hardly can be called that. Ranieri has pared away some of the hodgepodge of losers in United's portfolio, including a Houston taxi service and a health spa chain. But he still is stuck paying off inherited CDs that carry rates as high as 11%. Last year, United paid depositors almost a percentage point more in interest than it earned on its assets. This "negative spread" put it at the bottom 10% of 237 similarly sized thrifts, according to Sheshunoff Information Services, an Austin (Tex.) consulting firm.

It was only the feds' help that enabled United to show a profit. Under the terms of the 1988 deal, the Federal Deposit Insurance Corp. pays the thrift enough that it can make two points above the average rate paid on deposits in Texas. Last year, according to United, the payments amounted to about $150 million. And while such subsidies have raised eyebrows, Ranieri didn't get any tax breaks, as did Ronald O. Perelman and other thrift buyers.

HURDLES. For the most part, Ranieri plans to run his S&Ls the old-fashioned way—making home loans. But his Wall Street background will help him guard against sudden shifts in the money markets through sophisticated hedging strategies.

There are still plenty of hurdles. Ranieri's network of thrifts is tiny compared with such giants as NCNB Corp., which has 250 Texas branches. And if political posturing over the thrift scandal prompts an end to the subsidies, Ranieri likely would have to beef up United's capital. That's because even if the U. S. buys the bad assets back at 100¢ on the dollar, he would be stuck reinvesting the cash. And any new investments would be riskier—and tie up more capital—than the government-guaranteed loans now on his books.

Such a development, Ranieri maintains, "wouldn't be catastrophic." United's ratio of capital to assets is a healthy 6.5%, he says, and his money machine seems capable of raising new cash quickly. His new thrifts' 32 Dallas branches give him a foothold outside Houston, and he's looking for others, hoping to expand United's deposit base to $15 billion. Not satisfied with just thrifts, Ranieri recently raised $200 million to invest in Lone Star commercial property. Thinking big, Texas-style, has not involved much of an adjustment for this Wall Street transplant.

By Mark Ivey in Houston

Lower your overhead. Overnight.

The accelerated pace of modern business makes the overnight letter a necessity.

Yet unless you're using our UPS Next Day Air Letter, you're probably paying more than necessary for this necessity.

Our efficiency enables us to deliver overnight for just $9.00—up to 40% less than other companies charge. And only UPS guarantees overnight delivery to every address, coast to coast.* So if you have an urgent need to send an urgent document, use the UPS Next Day Air Letter. It's one cost-cutting measure guaranteed to work overnight.

We run the tightest ship in the shipping business.

ups®

© 1990 United Parcel Service of America, Inc. *See UPS Air Service Guide for complete guarantee details.

BY GENE G. MARCIAL

ICY COOL PICKS WHILE THE MARKET IS SWEATING

When plummeting stock prices stunned investors on July 23, money manager Graham Tanaka reacted with cool precision. He snapped up shares of his top "growth-value" favorites: Sea Containers, Pfizer, and Airborne Freight.

Investors, says the president of Tanaka Capital Management, are rediscovering growth plays—companies with enviable track records or the potential of sustaining an earnings pace of 20% a year or more. Tanaka's forte is spotting companies where for some not-immediately-apparent reason earnings will be turbocharged. What will propel his picks to the high ground?

Sea Containers, he argues, is a "completely new growth-oriented company." Some find its recent recapitalization to avoid a takeover confusing, but Tanaka thinks it created an undervalued situation. The company sold most of its dry cargo and tank container business, the least profitable part of its container operations. It kept the faster-growing and higher-margin specialty containers and some of its ferry business.

CATAMARANS. Currently trading at $64 a share, Sea Containers' stock is cheap, says Tanaka, based on estimated 1990 earnings of $9.40 a share and $12 in 1991. The company earned $7.15 last year. The high-speed catamarans that the company will add to its ferry business "should jack up earnings by 50% over the next three years," says Tanaka. He sees the stock soaring as high as $150 a share during that period.

Tanaka believes Pfizer is a blockbuster company. It has developed a pipeline of new drugs, plus the hot-selling Procardia XL, a drug for hypertension and angina, and Diflucan, an antifungal therapy for treating severe, life-threatening infections. Procardia XL, notes Tanaka, racked up sales of $150 million in the first six months of 1990, and Diflucan about $87 million.

The two drugs should help Pfizer earn $4.70 a share this year and $5.45 in 1991, figures Tanaka. Although current lawsuits against Pfizer related to its troubled Shiley heart valves have dampened interest in Pfizer, Tanaka believes the stock, now at $70 a share, could still fly as high as $125 in the next three years.

TANAKA: SPOTTING THE TURBOCHARGED

Airborne, which posted strong second-quarter results of 61¢, vs. 29¢ a year ago, has become the fastest-growing and lowest-cost domestic express delivery company, says Tanaka. A "dramatic earnings breakout" will spur earnings to exceed expectations in the next two to three years, says Tanaka, who raised his 1990 estimate to $2.10 a share from $2 and to $2.60 for 1991. Airborne earned $1.34 in 1989. He sees Airborne, now at 25, doubling in the next three years.

Tanaka sports an enviable investment record. Over the past 11½ years, the assets he has under management gained 18.5% a year, net of fees, vs. 15.5% for the Standard & Poor's 500-stock index. During the first six months of 1990, Tanaka's stock picks gained 12.2%, compared with the S&P's 3.2% rise.

THE NUGGET INSIDE PENNZOIL

With the flareup of tensions in the Mideast, oil stocks are rocketing—except, that is, Pennzoil. But some smart-money investors are convinced that its stock, too, is about to perk up.

True, Pennzoil earnings are lackluster. Moreover, the company's debt-to-capitalization ratio remains steep, at 40%, despite the cash infusion from the Texaco settlement, warns Warren Shimmerlik of County NatWest Securities. He worries that Pennzoil's aggressive chairman, Hugh Liedtke, may continue to buy more Chevron shares. Pennzoil already holds an 8.8% interest in Chevron.

But the Chevron connection is precisely what's prompting some of the savvy players to buy Pennzoil. By their computation, an investor who buys one share of Pennzoil at its current price of $81 is in fact paying only $18.80. Why? Because for every Pennzoil share, there is an 0.8 share of Chevron stock, which is trading at $77.75 a share. And 0.8 of $77.75 comes to $62.20.

"It's a smart short-term play in Chevron and a smart long-term investment in Pennzoil," explains Fred Leuffer, the oil guru at C. J. Lawrence, Morgan Grenfell. Leuffer estimates that Pennziol's breakup value is $130.

A CLEAR PLAY IN TOXIC WASTE?

One company that's cleaning up in the booming hazardous-waste business is ERC Environmental & Energy Services. Earnings and revenues are growing fast, and analysts now see 1990 profits rising to 83¢ a share, up from last year's 67¢; in 1991, they could hit $1.

But some investors are buying in for another reason: They are betting that Ogden, a diversified-services company, will soon move to buy the ERC Environmental shares it doesn't already own. Ogden last year acquired ERC International, which owns 69% of ERC Environmental (ERC International in 1988 had spun off ERC Environmental).

'A LOT OF SENSE.' Jeff Berg, an analyst at Raymond James & Associates, says it "makes a lot of sense for Ogden to buy out the minority shareholders because of the capabilities in the waste-cleanup business that it can combine with ERC Environmental." ERC provides a broad range of environmental and energy consulting and engineering services to industry and the government. It has established a strong position in several industry niches, including analytical and technical work for the Energy Dept.'s massive program to mop up its military and weapons facilities.

Berg notes that Ogden's new president and CEO, Richard Ablon, has made no bones about wanting Ogden to build a strong position in the waste-cleanup business to bolster Ogden's conversion of waste into energy. ERC President Mark Elliott said the company has close ties with Ogden. "We don't worry about them buying us out."

Berg, who thinks ERC is a bargain compared with rivals, puts the buyout value of ERC Environmental at $16 to $20. The stock is trading at 11.

RITY

IRUSES? WHO YOU GONNA CALL? IACKERBUSTERS'

mputer security is a $3 billion industry—but critics say 'there are some charlatans out there'

is morning coffee tastes good, until he opens his newspaper and reads about the competition's latmove. "My God, they've stolen our product idea," he cries. Then comes call from the head office: "Richard, division leaks like a sieve, and ve got to stop it," shouts a furious f executive. The leak, which is soon ed to a disgruntled ex-employee who broken into the unit's computer sys-, will cost the company $950,000.

ounds like a juicy case of high-tech onage. But it never happened. It's a ma that IBM and Ernst & Young oted for a video aimed at computer rity officers in large corporations. tape, which includes a round-table ussion with security experts and corate computer managers, is of a marketing effort by Blue and the audit/coning firm to drum up busis by selling their expert ice on computer security.

LEN CODE. With real sto- of hackers, viruses, ms, and Trojan horse proms in the headlines, fear computer crime is clearly the rise. So is the market special security software and the talents of professional "hackerbusters." About 180 companies in the U. S. alone, ranging from mighty IBM to tiny one-man consultancies, are trying to get a slice of what International Data Corp. estimates is a $3 billion annual market for computer security products and services. Dozens of companies now sell "antivirus programs," designed to ward off the insidious computer viruses that "infect" computers and destroy data. Another popular product: programs that automatically generate new passwords to keep would-be hackers from breaking into a system with a stolen security code.

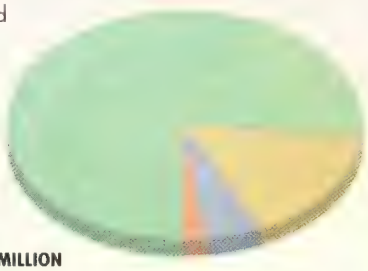
But the big money is in consulting. The top accounting firms, management consultants, and computer makers are all jumping into the business. By most accounts, the leading player is Deloitte & Touche, which was an industry pioneer. Its ProTech/Information Protection Services now has 250 corporate clients, each paying $50,000 to $100,000 for services ranging from assessing security problems to writing special software to protect key systems.

Steeling a major corporation against hackers and viruses can be costly. Donn Parker, a senior management consultant at SRI International who advises 44 companies including Merrill Lynch, Charles Schwab, and Dean Witter Reynolds on security techniques, estimates the cost at $1 million annually. That includes a $30,000 software package that scans incoming phone lines for unauthorized users attempting to log onto a mainframe and 3 to 10 full-time employees to maintain the computer-security system.

For $200,000, Ian A. Murphy, a reformed hacker known as Captain Zap, will break into a client's computer system "to show them how easy it is." Consultants at Murphy's Philadelphia-based IAM/Secure Data Systems Inc. interview employees,

COMPUTER CRIME: ONLY MINOR LOSSES

In 1989 Ernst & Young asked 285 U.S. companies: "In terms of dollars, how much data or computer downtime have you lost because of malicious acts (hackers and viruses) over the past two years?" The results...



- NOTHING
- BETWEEN $1 AND $50,000
- BETWEEN $50,000 AND $1 MILLION
- MORE THAN $1 MILLION

DATA: ERNST & YOUNG

rummage through garbage cans and desks, and case the company by going undercover as copier or telephone repairmen. With the information they glean, they learn how to penetrate the company's computer system from outside. Then they show how to plug the holes.

But, critics warn, some customers may be paying large fees for little or no protection. "There are some very good consultants, but there are also some real charlatans out there," warns Eugene Spafford, a Purdue University computer science professor. Unscrupulous hackerbusters sometimes wildly exaggerate the threat posed by hackers to win a consulting contract—then leave the client with little more than a list of obvious precautions, he says.

Even the most respected consulting firms play the numbers game. "If you're a vendor, you're a salesman," says Kenrick Lalla, data security specialist at the Bank of Montreal. "You will use any kind of method to push your product, and 90% of security vendors do that." For years, Ernst & Young and others in the field have cited a ballpark figure of $1 billion to $2 billion annually as the cost of computer crime. Last year, Ernst & Young, Computer Associates International Inc., and other companies hired J. J. "Buck" BloomBecker, the author of a book on computer crime and director of the National Center for Computer Crime Data in Santa Cruz, Calif., to come up with a better number. BloomBecker says he set out to "show that computer security is a big problem," but found that the cost to U. S. businesses—including thefts committed through unauthorized access to electronic banking systems—only adds up to about $550 million annually.

SCARY 'WORM.' Still, the mere threat of a break-in that cripples a computer system or results in the loss of confidential information is enough to keep hackerbusters busy for years to come. Indeed, notorious cases such as the "worm" that Cornell University graduate student Robert T. Morris Jr. let loose in a government research network have been a boon to the computer security industry. Recent scares, such as a hacker invasion of computers that direct emergency 911 phone calls have kept hackerphobia alive.

So what's a reasonable approach? Common sense helps. Security consultants say the most important step is training employees to help keep computers and vital data safe. NYNEX Corp., for example, requires employees to sign pledges to keep passwords secret and to eschew software obtained from public bulletin boards. In addition, NYNEX security forces are trained to deal with computer break-ins. Al G. Brunetti, NYNEX director of data security, says the simple answer is "proper internal controls." That way, everybody's a hackerbuster.

By Evan I. Schwartz and Jeffrey Rothfeder in New York, with Mark Lewyn in Washington

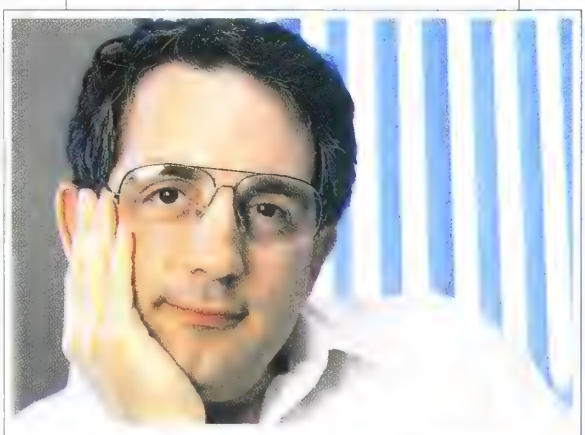
Commentary/by Jeffrey Rothfeder and Evan I. Schwartz

COMPUTER ANARCHISM CALLS FOR A TOUGH RESPONSE

Some "hackerbusters" may indeed exaggerate the threat that hackers pose to Corporate America, but make no mistake about it: Computer break-ins and viruses can be dangerous. Where youthful, high-tech pranksters once broke into computer networks to prove their programming skills, there is now an increasingly dangerous core of computer anarchists on the loose. Take the Legion of Doom, a group of two-dozen hackers. On July 9, three Legion members pleaded guilty to charges that they fraudulently obtained data from BellSouth Corp. that helped them disrupt the 911 emergency-phone system in nine states. Their apparent reason for this electronic break-in: to prove it could be done.

The Legion's activities precipitated a series of antihacker dragnets by the U. S. Secret Service. The biggest of these, Operation Sun Devil, involved raids on hacker haunts in 14 cities; in all, 42 computers and 23,000 floppy disks were seized. So far, two suspects have been charged with computer crimes and more arrests are anticipated.

But Sun Devil's wide scope has drawn sharp criticism from some big names in the computer industry. The Electronic Frontier Foundation, started in July by Lotus Development Corp. founder Mitchell D. Kapor and Apple Computer Inc. co-founder Stephen Wozniak, intends to provide legal assistance to those it regards as the victims of overzealous prosecutors. In addition, EFF wants to make sure that freedom of speech and the press is extended to computer-based communications.



KAPOR: OUT TO PROTECT CIVIL LIBERTIES IN COMPUTING

Kapor believes that hackers are criminals who violate others' private property. But he argues that, in its zeal to root out the villains, the Secret Service has stepped on too many innocent toes. He objects, for instance, to the indictment of Craig Neidorf, who allegedly published classified phone-company network information in *Phrack*, his on-line newsletter. Kapor argues that Neidorf's First Amendment rights to publish what he chooses are being abridged. Neidorf says he was unaware that the information he broadcast was stolen.

HACKER HYSTERIA? Government officials contend that Kapor is way off base—and will realize that when Neidorf is tried. By publishing the information, they say, Neidorf was giving Legion of Doomers the wherewithal to breach BellSouth's 911 computers. And, they add, the guidelines for white-collar search warrants were fully observed in every raid.

Kapor and Wozniak do raise an important point: Hysteria over hackers and viruses is no excuse for violating constitutional rights. But hackers who are determined to upend the system pose a serious threat that can't be taken lightly. The country has become so dependent on computer systems that a hacker bent on sabotage could cause a catastrophe. That must be prevented. New restraints on law-enforcement officials who are trying to stop them will be warranted only when—and if—the cure becomes worse than the disease.

We can help you from the middle of anywhere.

© 1990 AT&T

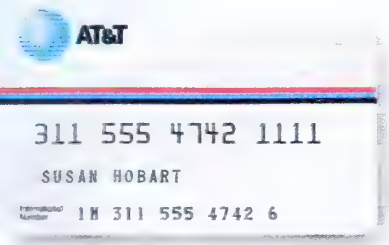
When you need to stay in touch on the road, it's nice to have a little help from the most widely accepted calling card in the world.

The *AT&T Calling Card.*

It simplifies calling to and from more places around the world than any other long distance card. You can even use it for local calls.

We offer more operators to speed your calls through. And on the off chance that the public payphone you're calling from doesn't automatically connect you with AT&T, we've made it easy to reach us.

Dial 10+ATT+0 Simply dial our access code, 10+ATT+0, plus the area code and number you're calling* and listen for the reassuring AT&T identification tone.



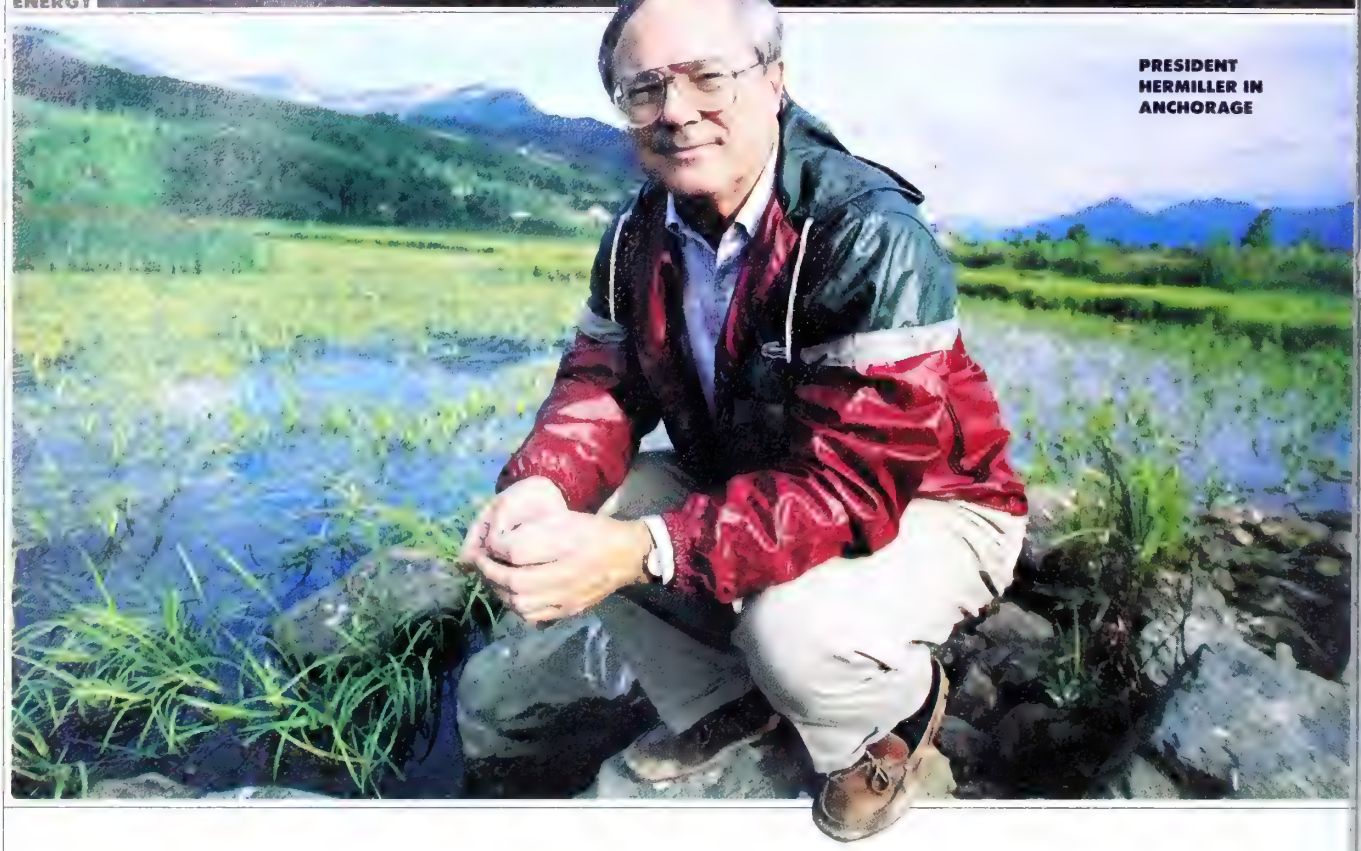
Anywhere, anytime, we're there to help you.

Of course, to get the help, it helps to have the card. To get your free *AT&T Calling Card,* call **1 800 661-0661 Ext. 5316.**

*For international calls, please dial 10+ATT+01+ the country code + the local number.

AT&T. How can we help you?℠

AT&T
The right choice.



PRESIDENT HERMILLER IN ANCHORAGE

CAUGHT IN THE WAKE OF THE EXXON VALDEZ

Since the spill, the Alyeska Pipeline consortium has been scrambling to mollify anxious regulators

The last time Alyeska Pipeline Service Co. had to rise to a challenge, it practically slept through it. When the tanker Exxon Valdez rammed Bligh Reef shortly after midnight on March 24, 1989, Alyeska's terminal superintendent was awakened by phone and told of the potential disaster. He dispatched a subordinate to check it out—then went back to bed. A cleanup barge was languishing in dry dock while other equipment was buried under snow. So Alyeska's emergency gear didn't reach the stricken tanker until more than 14 hours after it went aground. It was a tragedy of errors in which 11 million gallons of oil leaked into Prince William Sound, leading to a cleanup bill that has topped $2 billion.

It was also the start of a nightmare for Alyeska, the consortium of seven producers that pumps 1.7 million barrels of oil a day from Alaska's North Slope through pipes it 800 miles south to Valdez for loading into tankers bound for the Lower 48. Some 16 months after Exxon's accident, federal and state authorities are investigating serious corrosion on the pipeline. Newly emboldened regulators are demanding that Alyeska spend millions to clean up the air and water at its huge tanker terminal in Valdez. And the state wants the pipeline company to be better prepared for future accidents. "We still do have a credibility problem," says James B. Hermiller, president of Alyeska. "We're in a new world up here after the spill."

TOUGH SELL. Nobody feels the heat more than Hermiller, 55. Just two months after the disaster, the British Petroleum Co. refining and marketing veteran arrived in Anchorage as part of an Alyeska management shakeup. In October, the affable Midwesterner took the top spot, replacing George M. Nelson, who retired after years of sometimes rocky relations with environmentalists and state officials. Hermiller is trying to persuade Alaskans that Alyeska will indeed be run in state-of-the-art fashion as the industry promised Congress before the pipeline was built in the 1970s. But now the message is a tough sell. Dennis Kelso, commissioner of Alaska's Department of Environmental Conservation (DEC), says he believes Hermiller "wants to do the right thing." Yet he adds: "I'm still cautious and skeptical about the institution."

Alyeska is trying to lift the cloud of suspicion. It has agreed to cooperate with a citizens' committee that will monitor its environmental record. It is buying spill-response equipment. And its owners' committee is expanding Hermiller's staff to 1,200 by 1991, a 50% increase from 1988. Many new staffers will go into a department created last November to bolster environmental programs. BP, which owns half of Alyeska, dominates the committee. Atlantic Richfield and Exxon own about 20% each, while Amerada Hess, Mobil, Phillips Petroleum, and Unocal hold minor stakes.

ese steps are costing Alyeska plen-
he consortium's operating and capi-
udget will reach $750 million in
more than double that of 1989. And
s happening just as output tails off
the Prudhoe Bay oil field that
s the pipeline (chart). Alyeska
't report profits, which are passed
its owners. But Alaska's Revenue
says the pipeline's earnings sank
ear to $784 million, a decline of 11%
the year before. And profits are
cted to slip another 4% this year.
yeska's biggest potential problem is
orrosion eating into its 48-inch-wide
, threatening the Alaskan tundra.
ska itself has found 827 "anoma-
on the pipeline, mostly due to fail-
f its rust-inhibiting epoxy coating.
½-mile section in the Atigun flood-
is so badly corroded it must be
ced next spring. All told, Alyeska
ates, corrosion repairs will cost up
00 million by 1994. State officials
he figure closer to $1 billion.
atever the number, regulators are
ng into possible lapses in the con-
tion and maintenance of the pipe-
The General Accounting Office told
ress in March that Alyeska offi-
as well as state and federal regula-
knew of corrosion problems even
g construction. The U. S. Transpor-
n Dept. also has questions. "We
to know what did they know and
did they know it?" says George W.
ey Jr., director of Transportation's
e of Pipeline Safety. Alyeska claims
s met its responsibilities—and that
sion is inevitable as the pipeline
. The company says no leaks have
red and that damage came to light
in 1988, when sophisticated technol-
was developed that could detect
ing in the half-inch-thick pipe wall.

G HAMMER.' It doesn't take leaks,
gh, to cost the state dearly. Alaska
cts taxes based on the value of oil
is pumped from the ground. This
lhead" figure represents the differ-
between prices paid by refineries
the costs incurred in transporting oil
arket. Central to these is the tariff
ska's owners charge crude oil buy-
o cover pipeline operations. Assum-
il prices remain stable, the wellhead
e falls when operating costs rise,
the state figures that every one dol-
ariff increase reduces its tax take
5¢. So a $1 billion repair job could
it $250 million in lost taxes. When
ska's owners raised their 1990 tar-
partly to fix corrosion, state offi-
protested the tax consequences be-
the Federal Energy Regulatory
mission. "They were supposed to
[corrosion] to a safe rate—and they
d," says Douglas K. Mertz, an assis-
attorney general for Alaska.
lyeska's air quality record is also un-
der attack. Regulators disclosed in June that Valdez residents face a "moderate" cancer risk from hydrocarbons released during tanker loading at Alyeska's terminal, where gray smokestacks and green storage tanks rise before the snow-laced Chugach Mountains. The 42,000 tons of hydrocarbons tankers discharge annually equal about 10% of hydrocarbon emissions for the Los Angeles basin, and regulators want Alyeska to cut emissions 95% by June, 1992. "Obviously, there's a big hammer out there," says Hermiller. "There's going to be more and more regulation."

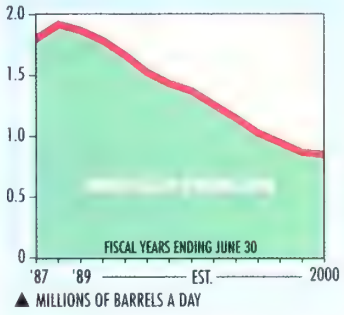
That, say critics, is because Alyeska is moving too slowly. Its own study of emissions in Valdez won't be done until next June. And there are typical cost squabbles: Alyeska says installing the

WHY ALASKA NEEDS TO BREAK ITS OIL HABIT

A gritty speck on the desolate Alaskan tundra, Deadhorse is the commercial hub of the North Slope oil fields. Most of the 3,000-odd inhabitants are temporary contractors. They live in prefabricated metal buildings and congregate at the general store, which sells everything from haircuts to money orders. Down the road, the Arctic Caribou Inn serves up caribou stew to adventuresome tourists. Inn manager Meg Halsey expects 5,000 visitors this year, all coming to see what she calls "the granddaddy of oil fields." Without Prudhoe Bay, she notes, the tourists and the town would be gone in a flash. "Deadhorse," she declares, "exists only because the oil field exists."

Financially, at least, the same can almost be said of Alaska. Since the first North Slope oil was pumped in 1977, the state has been dangerously dependent on petroleum. Its share of the oil take is $2 billion a year—85% of its total revenues. Now, Prudhoe Bay, a huge onshore reservoir representing 15% of U. S. oil production, is entering its twilight. By the year 2000, North Slope output will be half this year's 1.7 million barrels a day, according to Alaska's Revenue Dept.

A BLEAK OUTLOOK FOR ALASKAN OIL



DATA: ALASKA DEPT. OF REVENUE

BUDGET GAP. With their constitution requiring a balanced budget, Alaskans are stymied over how to replace the impending loss of income. "We are at the precipice," warns Hugh Malone, commissioner of revenue. Many Alaskans hope for another Big Strike—like the 1890s gold rush, the discovery of Prudhoe Bay in 1968, or the trans-Alaska pipeline project in the 1970s. The development-minded see that bonanza either in the oil-rich Arctic National Wildlife Refuge or the construction of a proposed gas pipeline from the North Slope to Valdez. But environmental concerns and low gas prices make both prospects unlikely for the time being.

One way out of the looming fiscal bind would be diversifying the economy. But given Alaska's location, harsh climate, and small internal market, expanding beyond natural resources is "like trying to push on a string," notes Scott Goldsmith of the University of Alaska's Institute of Social & Economic Research (ISER). Previous stabs at diversification—into such areas as petrochemicals and dairy farming—have been disasters. The state now backs more sensible schemes, such as tourism and exporting seafood. But despite these measures, the Revenue Dept. expects the state to receive more than half its income from oil and gas until at least 2005.

That means Alaskans face higher taxes and fewer government services, bitter pills in a generous state. There's no state income or sales tax—and residents receive an annual oil dividend check of about $1,000. Juneau heavily subsidizes schools, public works, and welfare programs.

Few elected officials yet dare to suggest abandoning such benefits. "They don't want to deal with the alternatives until disaster is at the door," says ISER political scientist Thomas Morehouse. But polls show as much as 40% of the public now favors reestablishing the personal income tax, which was abolished in 1980. With North Slope production in decline, many Alaskans already hear disaster knocking.

By Maria Shao in Deadhorse, Alaska

RAY VELLA-BW

piping, incineration equipment, and other facilities needed to recover and dispose of the vapors would cost more than $100 million. The DEC pegs the tab at less than $32 million. Whatever the figure, says Michele D. Brown, DEC's regional administrator in Anchorage, "they ought to aim for the best, not just the arguable minimum."

STILL STALLING? The distrust is fueled by a previous fight over water quality. Since the early 1980s, Alyeska has fought requirements for treating oily ballast water carried by inbound tankers. As a vessel is loaded, its ballast is pumped to Alyeska's terminal to be treated before being released into Prince William Sound. But it still contains traces of toxins, which the state is trying to force Alyeska to further reduce. After repeated protests, Alyeska finally gave in last May, agreeing to spend $42 million on new treatment facilities.

It has moved faster with spill protection. After Alaska ordered better planning last year, Alyeska created a $45 million-a-year program in Valdez, where it keeps cleanup gear and emergency vessels at a round-the-clock pier. Every loaded tanker is now escorted to sea by a tug and a vessel carrying a containment boom and oil-sucking skimmers. Tanker captains are tested for alcohol an hour before departure. And Alyeska is storing emergency gear at hatcheries and training fishermen in spill response.

Still, a debate rages on. A new state law requires that Alyeska be prepared to clean up a 300,000 barrel spill—15% larger than the Exxon spill—within 72 hours. There's no doubt Alyeska can better the 2,000 barrels in 48 hours it was geared up for before the Valdez disaster. But DEC environmental engineer Daniel J. Lawn said in May that Alyeska's new emergency equipment "does not provide reasonable assurance that a large oil spill would be contained or recovered. The shores would, again, be oiled." Hermiller counters that Alyeska's new spill plan "is probably the best today in the world."

CHECKING THE PIPELINE FOR DAMAGE

This claim may soon be easier than ever to test. Hermiller's February endorsement of the citizens' committee surprised environmentalists. He even signed a contract granting the group as much access to Alyeska operations and records as regulators get. The company funds the committee with $2 million a year and will submit disputes to arbitration. But some argue that with Alyeska controlling funding and technical data, the committee will be a paper tiger. "Alyeska has been engaged in a PR campaign," says Randall M. Weiner, of Trustees for Alaska, an Anchorage environmental law firm. "We haven't seen any substantive changes yet." With so much distrust still in the air, Hermiller has a long way to go to persuade Alaskans that his reforms are for real.

By Maria Shao in Anchorage

Grow Your Business—and Career—with the McGraw-Hill Bookstore

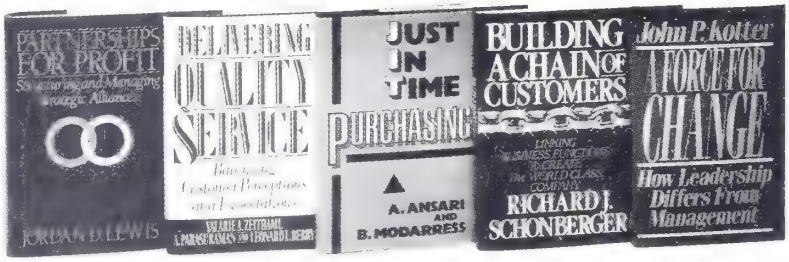
PARTNERSHIPS FOR PROFIT
Structuring and Managing Strategic Alliances
By Jordan D. Lewis
The first full-scale analysis of how IBM, Ford, Sony, Corning, and other leading firms worldwide are teaming up to develop new products, achieve larger scale economies, and access new markets and technology. *336 pp., $27.95*

DELIVERING QUALITY SERVICE
Balancing Customer Perceptions and Expectations
By Valarie A. Zeithaml, A. Parasuraman, and Leonard L. Berry
"Will be a best seller. It will certainly be 'must' reading for retailers in the 1990s." —George J. Stasick, Manager of Customer Services & Customer Relations, J.C. Penney Company, Inc. *226 pp., $24.95*

JUST-IN-TIME PURCHASING
By A. Ansari and B. Modarress
Draws on JIT purchasing practices at GM, Boeing, Honda, and other major firms to show why companies emphasizing product quality, supplier relationships, delivery performance, and price—*in that order*—enjoy a competitive edge. *162 pp., $35.00*

BUILDING A CHAIN OF CUSTOMERS: Linking Business Functions to Create the World Class Company
By Richard J. Schonberger
"A bold ... and meticulously detailed ... blueprint for redesigning corporations to destroy functional myopia, to live as a whole to serve the customer." —Tom Peters, author of *Thriving on Chaos*
349 pp., $29.95

A FORCE FOR CHANGE
How Leadership Differs from Management
By John P. Kotter
Why too many companies are overmanaged and underled—and how managers at NCR, P&G, Kodak, Digital, and other major firms have worked with colleagues and subordinates to forge a leadership process that creates extraordinary results.
180 pp., $22.95



From The Free Press
Clip or copy this coupon and fax or mail to:

McGraw-Hill Bookstore, 1221 Avenue of the Americas
New York, NY 10020 Tel. 212-512-4100 Fax: 212-512-4105
Fax or phone orders delivered within 10 days!

YES! Please rush me:
Qty
____Lewis/**Partnerships for Profit** @ $27.95
____Zeithaml et al./**Delivering Quality Service** @ $24.95
____Ansari/Modarress/**Just-in-Time Purchasing** @ $35.00
____Schonberger/**Building a Chain of Customers** @ $29.95
____Kotter/**A Force for Change** @ $22.95

Check, money order, or credit card only:
❑ Visa ❑ AMEX ❑ MasterCard
Account No. _____ Exp. Date ____
Name _____
Address _____
City _____ State ____ Zip _____
Please add applicable sales tax, plus $2.50 for U.S. postage and handling
BW890

The McGraw-Hill Bookstore—Serving Today's Professionals

"WE WORK FOR YOU WHETHER YOU HAVE OUR INSURANCE OR NOT."

Gerald Maatman, President
Kemper National Insurance Companies

"I know it may sound odd or the president of an insurance ompany to say that.

But Kemper is working ard for tougher seat belt laws, afer traffic speeds, improved high-vay markers, 5 mph bumpers and tricter legislation against drunk nd drugged driving. And as o-leader of a new national safety coalition linking the insurance industry and consumer groups, I have a personal interest in seeing these things become a reality.

So while I'd like you to have a Kemper insurance policy, and we'd do a good job taking care of you if you did, the point is this: We'll do a good job for you even if you don't."

MAKING INSURANCE WORK FOR EVERYONE

Kemper national insurance companies

Now get even lower monthly payments with the Summer SMARTLEASE℠ Special

This summer, SMARTLEASE by GMAC can put you and GM quality on the road.

Now it's smarter than ever to get on the road with GM quality through GMAC's Summer SMARTLEASE Special. SMARTLEASE can be more affordable than purchasing to begin with. And now special support from each GM vehicle division makes SMARTLEASE payments even lower on select new GM cars and trucks.

At GMAC, we're helping to put GM quality on the road. Expiration dates vary. See your participating GM Dealer for dates and qualification details of the Summer SMARTLEASE Special on these new 1990 and '91 GM vehicles:

- Chevrolet Lumina (excludes APV) • Pontiac Grand Prix • Buick Regal
- Oldsmobile Cutlass Supreme • Chevrolet S-10 Blazer, 2- & 4-wheel drive
- GMC S-15 Jimmy, 2- & 4-wheel drive • All Cadillacs (1990 models only)

CHEVROLET • PONTIAC • BUICK • OLDSMOBILE • GMC TRUCK • CADILLAC

SMARTLEASE℠

by GMAC

© Rights Reserved

D BY OTIS PORT

LLER ID IS ALREADY ARNING NEW TRICKS

Caller identification—that new telephone technology where you see the phone number of a caller before you pick up the handset—is already spurring some interesting spin-offs. Dallas-based Inter-Voice Inc., a leading supplier of automated voice-response systems, is exploiting caller ID in a robotic switchboard dubbed, aptly, RobotOperator.

Link this system to your company's data base, and RobotOperator can use the caller's phone number to retrieve the name of the person or company on the other end. At the time, it can pull up and display on a video screen whatev- sociated information you might want. The basic configu- n is a single add-on "card," or printed-circuit board, in an Personal System/2 desktop computer. A one-card system nandle 24 simultaneous calls, incoming or outgoing, and $39,000. A four-card setup for up to 96 calls runs $96,000. price includes the software that RobotOperator needs to rogate various data bases.

UNTERFEITERS BEWARE: IS COPIER LEAVES A TRAIL

lor copiers are getting so sophisticated that some people re cashing in on the technology by printing fake money, ler's checks, and commuter rail passes. In one case in- ng counterfeit train tickets for New York's Metro-North nuter Railroad, an official with the railroad conceded that nitations actually looked better than the real thing. And this year, the U. S. Secret Service arrested a New Jersey who had made $1 million worth of photocopied paper y and traveler's checks.

t a new and less expensive color copier due out next year Minolta Corp. will be hazardous to use for illicit gains. It nark every copy with an all-but-invisible code. Since each ine will have its own code, Minolta says, bogus copies of notes or other financial instruments can be quickly traced particular copier. The Ramsey (N. J.) company, worried color copiers may produce a "cottage industry of counter- rs," will also require prospective buyers to show why they a color copier and furnish their Social Security and corpo- tax identification numbers.

NETIC FINGERPRINTS EN'T ALWAYS SO FOOLPROOF

e use of DNA fingerprinting is a controversial technique eing advocated as a nearly foolproof way to identify nals. Scientists can take some tiny biological sample—a or a drop of blood—and search for certain key genetic rns. If a defendant's genetic variations, called polymor- ns, match at least four of those in the original sample's erprint," then he or she is supposedly linked to the crime. There is only 1 chance in 10 million that two people have the same four polymorphisms. But while lawyers may consider such odds cut-and-dried, the mathematics could be misleading.

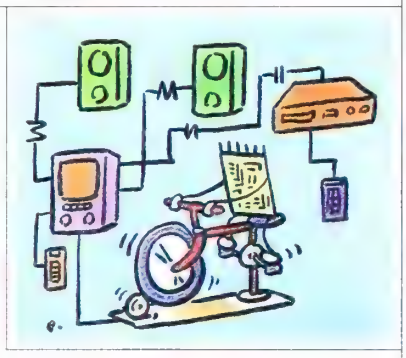
Apart from concern over reports of slipshod work in the forensic laboratories that do DNA fingerprinting, geneticists have just tossed in another monkey wrench: What if genetic polymorphisms are not always independent traits? Just as a person with blond hair is likely to have blue eyes as well, researchers wonder if some polymorphisms might be inherited together. For example, if two variations frequently occur together within Florida's Cuban population, then the odds against an innocent Cuban being falsely identified by a DNA fingerprint would change to 1 in 10,000. As a result, geneticists are now checking various population subgroups to determine just how often similar polymorphisms occur together.

HEAVY PLASTIC MAY BE HEADED FOR THE HEAD

Plastic is aiming to grab yet another market from Mother Nature. But this time the attractions won't include weight savings—one big reason why plastics have displaced so much porcelain-clad metal for bathtubs. For other bathroom items, such as commodes, many customers still prefer the rock-solid feeling of traditional materials. So General Electric Co.'s plastics division has developed a heavy, rocklike plastic.

This new material blends 30% polyester resin, specially doctored, with 70% ultrafine mineral particles. Those minerals—GE won't say what they are or how it modifies the polyester to allow such a heavy load of so-called filler particles and retain moldability—give the compound a density equal to glass. The Pittsfield (Mass.) company is already supplying the plastic for toy trains and ceramic mugs. GE predicts that annual demand for rocklike plastics could exceed 50 million pounds. And some of that demand could be for bathroom thrones.

A BRAIN-ON-A-CHIP TO MAKE TV SETS SUPERSMART



Imagine that every time TV makers develop some new gimmick, such as picture-in-picture or ghost-canceling features, you could get it without having to buy a new set. That's the future promised by a flexible new video processor from ITT Semiconductors' Intermetall unit in Freiburg, West Germany. Unlike the video processors in today's digital TVs, ITT's new chip will be programmable. Adding new TV features could thus be as easy as plugging in a memory-chip module that contains whatever new software is needed.

Called the Datawave, the chip can be programmed just as easily for other jobs that require vast quantities of video signals to be processed rapidly. It could serve as the "brain" of robot vision systems or multimedia computers that show digital graphics and full-motion video images at the same time. That's because the chip is a veritable mainframe on silicon. It sports 1.2 million transistors in 16 processors that, running in parallel, can crunch 4 billion instructions every second—giving it enough oomph to process even the massive data that will be required for tomorrow's high-definition TV signals.

FOR AD RATES
AND INFORMATION
PHONE:
(312) 337-3090
OR WRITE:

BUSINESS WEEK MARKET PLACE

BUSINESS WEEK
MARKET-PLACE
100 EAST OHIO STREET
SUITE 632
CHICAGO, IL 60611

Health/Fitness

THE ULTIMATE CHAIR for a stress-free workday!

Our leather office chair reclines!

BackSaver FREE 14pg. catalog 1-800-251-2225 or write
53 Jeffrey Ave., Dept. BW-26, Holliston, MA 01746
In MA 508-429-5940

Education/Instruction

Now Read This!

Studies by **Harvard University** show that reading and English skills improve after just one exposure to closed-captioning. The **L.A. Times** reports that "closed-captioning is becoming television's biggest learning aid". And the **U.S Department of Education** will actually pay you $20 to turn TV time into learning time for your family by bringing closed-captioning to life in your home. Let the *"Little Mermaid"* or *"Bill Cosby"* be just two of the reading teachers that come to your house everyday. A closed-caption decoder teaches by displaying dialog, similar to sub-titles, but only larger. Over 360 hours per week of TV programming as well as almost 2,000 video titles are closed-captioned to give your child a head start. Take advantage of it!

$169.00 after rebate

For more information call
ASSOCIATED VENTURES NETWORK
toll free **1-800-441-4286**

Business Services

FOR THOSE SEEKING GREATER ACCESS TO JAPANESE MARKETS

Learn how an understanding of cultural dynamics can help eliminate trade barriers and make your products more desirable to the Japanese people

- Multilingual
- 2 years research and study at the National Museum of Ethnology, Osaka Member Nihon Tenji Gakkai (Organization for the Study of Japanese Design)

Address inquiries to:
Sam Collier
165A Mt Vernon St
Boston, MA 02108
(617) 742-3872

Executive Maternity Fashion

Mothers Work Maternity
Dresses For Success

For career suits, elegant dresses, contemporary sportswear and evening dresses too! For a great image during and after pregnancy. **Catalog** with swatches and fit guide $3, refundable with order.

Visit our stores in: Atlanta, Arlington Hts., IL, Baltimore, Boston, Charlotte, NC, Chicago, Cleveland, Dallas, Denver, Fair Oaks Mall, VA, Ft. Lauderdale, Harrisburg, PA, Hartford, CT, Houston, King of Prussia, PA, Los Angeles, Memphis, TN, Minneapolis, New Orleans, New York, Palo Alto, CA, Philadelphia, Pittsburgh, Princeton, N.J., Rochester, MN, St. Louis, San Francisco, Orange County, CA, Stamford, CT, Washington, D.C. Phone 215-625-0151
2 South Notre Street, 5th Floor, Dept BW[illegible], Philadelphia, PA 19123

Hobbies/Collectibles

Business Services

CONSULTEL
PROFESSIONAL TELE-MARKETING SERVICES

We know the secret to your success!
Professional, cost effective telemarketing

- *SCREENED APPOINTMENTS*
- *QUALIFIED PROSPECTS*
- *CUSTOMER SERVICE*
- *MARKET RESEARCH*
- *DIRECT SALES*

We offer you...

- *PROFESSIONAL OUTBOUND TELEMARKETING*
- *CLERICAL SUPPORT FOR YOUR PROGRAM*
- *DATABASE MANAGEMENT & SOFTWARE*
- *A ONE TO FIVE SUPERVISION RATIO*
- *EXCELLENT REFERENCES*
- *PERSONALIZED SERVICE*

Call or write today for a free brochure!

2320 N. WOODLAWN AVE METAIRIE LA 70001
1-(800)-256-2418 · FAX: 1-(504)-887-9398

INCORPORATE IN DELAWARE!

Specialists in setting up Delaware Corporations. General, Aircraft, Boat & Shelf Corporations.

Delaware Registry Ltd.

Call/Write for FREE KIT:
P.O. Box 484-BW
Wilmington, DE 19899
800-321-CORP • 302-652-6532

Business Opportunities

DISTRIBUTORS/DEALERS
Hi-Tech Hovercraft & New Design Watercraft developed in Japan now available in USA
AMERICAN HOVERCRAFT & SPORTS, CA
(714) 970-8870 OR (714) 970-5384 FAX

Financial Services

BUY STOCKS WITHOUT A BROKER

Special Report... Do-it-yourself investing at its best!
Better than low commission...no commission investing!
Get this Special Report from
DOW THEORY FORECASTS

plus **Special Report: 94 Electric Utilities**...clear ratings assigned, five special buys evaluated
plus Charles Schwab's great book, **"How To Be Your Own Stockbroker"** (reg. $5.95 value)
plus **Full Consultation Privileges**

all with your 6 month (26 weekly issues) **introductory subscription** for only $57. New subscribers only. VISA or MC. Order today by phone or fax directly from:

Dow Theory Forecasts, Inc., Dept. BMP0790
7412 Calumet Ave., Hammond, IN 46324 (219) 931-6480
FAX (219) 931-6487

Financial Services

INVESTORS
Capital required for purchasing insurance companies below market value. Projected returns at 50 to 75% per year or more
Equity interests available
Send for Prospectus
American Health Inc
205 West Main
Hill City, KS 67642
913-674-2139

Language Translations

FOREIGN LANGUAGES TRANSLATED IN ENGLISH
Scientific-Commercial-Military
6¢/word 72 Languages. Since 1969
David Grant Stewart & Company, 1324 Ava Rd., Severn, Md 21144 (301) 551-2746

Autechna Interest Holding Western and Eastern Germany

National and international automobile manufacturers invest billions in East Germany.

We are a trading organisation specializing in technical spare parts for all automobile models.

Expanding into FRG and GDR we offer shares - DM 100.000, - min - to lenders.

Now is the time to invest in this profitable market.

You can receive an exposé shortly.

Please write to the

Autechna Autoteile KG
Siemensstraße 2
D-3550 Marburg 1
Western Germany

IT PAYS TO ADVERTISE IN THE BUSINESS WEEK MARKET-PLACE

The Business Week Market-Place Section is a special advertising feature appearing in the first issue of each month. The Market-Place provides an ideal 'Showcase' for advertisers who have products or services that appeal to Business Week's more than 6.2 million responsive readers.

For rates and information mail the coupon below, or call (312) 337-3090 or FAX (312) 337-5633.

MAIL COUPON TODAY

BUSINESS WEEK MARKET-PLACE
100 East Ohio St., Suite 632
Chicago, IL 60611

Name _____
Company _____
Address _____
City _____ State _____ Zip _____
Phone _____

FOR AD RATES AND INFORMATION PHONE: (312) 337-3090 OR WRITE:

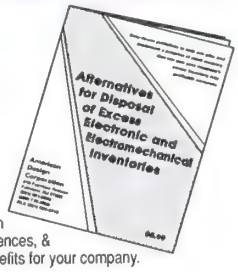
BUSINESS WEEK MARKETPLACE

BUSINESS WEEK
MARKET-PLACE
100 EAST OHIO STREET
SUITE 632
CHICAGO, IL 60611

Inventories Purchased

e excess inventories ying up *your* cash?

for a **FREE** copy of this guidebook ling your company's cash recovery ns from excess or obsolete electronic ctro-mechanical inventories.



-page step-by-step guidebook outlines a wide range osal options, including private sale, auction, consignment . It explains the advantages & disadvantages of each option s of cash return, timing, overhead expenses & tax consequences, & ou decide which method is best suited to maximize the benefits for your company.

der, mail to:

... AMERICAN DESIGN CORP. .....

P.O. Box 220, Dept. BW, 815 Fairview Ave., Fairview, NJ 07022
or *CALL TOLL FREE* 1 (800) 776-3800
Or, in New Jersey (201) 941-5000

Wine Cellars

Visa/MC/AmEx/Discover

WINECELLARS-USA

18 Models – We won't be undersold!
Immediate shipment on most models.

Handmade Wood Cellars		*Your Cost*
296 Bottle Credenza	Ret: $ 2795	$ 1795
440 Bottle Capacity	2495	1695
700 Bottle Capacity	3495	1995
Designer Models – *Not Handmade*		
40 Bottle Glass Door	$ 599	$ 499
60 Bottle Glass Door	749	659
FurVault holds about 8 Furs $3495		$ 1895

Only $2.85 per bottle *Model 700*

Custom Cellars & Racking Systems – Call For Catalog
134 W 131ST St. Los Angeles • 800/777/VINO (777-8466) or in CA 213/719-9500

Business Services

ASER FACTORY

er Cartridge Reconditioning
onwide Free Pick-Up & Delivery
Prices On NEW Cartridges Too!
Purchase Used Toner Cartridges
) Off 1st Order (With Ad)
Chess Dr, Foster City CA 94404
359-5777 or 415/571-9442

CORPORATING? FREE KIT

It's easy in Delaware or any state with our fast, reliable, inexpensive service. For free information call toll free (800)441-4303, or write:

A.i CORPORATE AGENTS, INC.
Department BW, Box 1281
Wilmington, DE 19899

ocating? Are you or your staff ocating to the metropolitan Toron- area? Let us assist you in obtain- a one or two year lease, for es- s, executive homes, town homes condominiums. For information e: Corporate Property Manage- nt, 6111 Hardesty Presc., Missis- ga, Ontario, Canada L5V 1B3 or 416-542-7963.

NCORPORATE IN DELAWARE
250 for Complete
ncorporation
WHITTINGTON & AULGUR, Law
ffices. For free information
Vrite P.O. Box 5550,
Vilm., DE 19808 or Call
-800-441-9459

PEN YOUR OWN RETAIL STORE
easy 7 step guide to opening your n store and a simple 8 step guide to cessfully managing it including ation, financing, budgeting, adver- ng, merchandising and salesman- . Send $2.00 for postage and han- g to JRS Marketing, P.O. Box 703, nden, AR 71701

Business Software

Use your IBM PC wordprocessor, database to write Greek, Russian, European, Hebrew & Scientific with **TURBOFONTS™**.
Image Processing Software, Inc.
∑ Ж Д ΓCΛ ©®ΨΘΥ
P.O. Box 5016
Madison, WI 53705
(608) 233-5033

PERSONAL PORTFOLIO MANAGEMENT SYSTEM $219.50. For all types of securities:stocks, bonds, mutual funds, CDs. Provides reports for portfolio appraisal, unrealized/realized gain; monthly income estimate, broker commissions; graphic presentations and much more. IBM/compatible. To order call 800-762-6468, in CA 800-442-9007. Or write to Wallace Estate Pricing Service, Inc. 6433 Topanga Canyon Blvd., Suite 125, Canoga Park, CA 91303.

Computers/Office Equipment

MARYMAC INDUSTRIES INC

Our 14th year of DISCOUNTS
Tandy® Computers
Radio Shack® Products
Toll Free 800-231-3680
22511 Katy Fwy Katy (Houston) TX 77450
1-713-392-0747 Fax (713) 574-4567

Voicemail

VOICE MAIL
CALL PROCESSING
TELEMARKETING

Let Powerline transform your PC/XT/AT/386 into a multi-line voice processing command center. Have your computer intelligently process your sales, inquiries and messages. Complete package

Single Line (BigmOuth) . . **$295.00**
Multi-Line **$895.00**

(Developer/OEM packages available)
VISA MC AMEX COD
Call: (415) 522-3800
FAX (415) 522-5556
TALKING TECHNOLOGY, INC.
1125 ATLANTIC AVE., STE 100, ALAMEDA, CA 94501

©1990 TALKING TECHNOLOGIES INC

Business Software

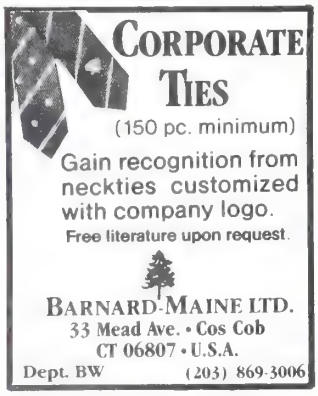
Attention:
Chief Financial Officers
Acc's Payable Managers
and/or Traffic Managers
"Freight Wizard"

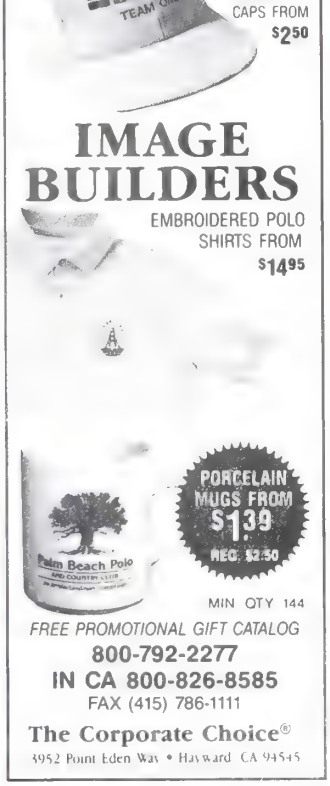
The Operational & Financial Control System For Shipping Professionals.....

Generates and Prints Airbills,Shipping Labels,& UPS Manifests.....
Control and trace COD Receipts for shipments....
Categorize Shipping Charges By Expense Allocation.....
Protects freight charges (Erroneous Invoices, Over Charges, Etc.) In house with Freight Bill Auditing And Payment Authorization.
Prepare "Approved Freight Charges Report" For Payables Department.....
Includes historical shipment data for reporting and analysis.....
Keep track of and Control Shipment Information.....
Ship any type of freight using any type of service..
Provides 45 different Financial and Transportational management reports 4 different ways...
Automatic Rating of Your Freight Shipment Airbills..
Track Freight Transit Times, weight distribution and carrier performance...
Rate Compare Feature Automatically Selects the 3 lowest cost Carriers with 3 levels of service.....
& Much, Much More.....

For More Information: &/or a Demo Diskette Call: **Target Technology Concepts, Inc.**
203-775-8406

Corporate Gifts





STRATEGIES

FIRESTONE HAS PUT A HOLD ON EXPANDING ITS 1,550-OUTLET MASTERCARE SERVICE CHAIN

SO FAR, AMERICA IS A BLOWOUT FOR BRIDGESTONE

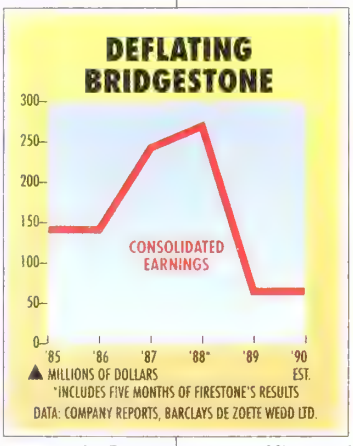
Losses at the tiremaker's Firestone unit will clobber 1990 profits

First came a hiring freeze. Then, management delayed ambitious capital spending plans. Officers got no bonuses in 1989. More than 150 employees took early retirement, and now 250 more are losing their jobs in a partial plant closing. Two jets and a synthetic rubber plant are on the block.

Is this some shaky leveraged buyout, another 1980s Wall Street deal gone awry? No, this is the old Firestone Tire & Rubber Co., purchased for a rich $2.6 billion two years ago by Japan's Bridgestone Corp. Combining Firestone with some of its foreign operations, Bridgestone hoped to make the redubbed Bridgestone/Firestone Inc. a top-quality, globally competitive player.

IN A SKID. Instead, losses at the No. 3 U. S. tiremaker pulled the parent's worldwide profits down 76% last year, to $67 million on sales of $11.7 billion. And George W. Aucott, chairman of Bridgestone/Firestone, says losses of $300 million at the unit this year are "dangerously possible." Without asset sales or other moves, that could drag Bridgestone Corp. near the breakeven point, instead of the $139 million profit it projected in March. The company is undoing expansion plans and struggling to improve U. S. manufacturing. "Suddenly, there is all this big surprise in the executive suites in Tokyo," says Jacques R. Sardas, the top tire executive at Goodyear Tire & Rubber Co. "Where is all this meticulous analysis and planning?"

There wasn't much, because the Japanese tiremaker bought Firestone in the heat of a bidding battle with Italy's Pirelli. But when Bridgestone officials arrived in Akron, they found a company in far worse condition than they expected. Chairman John J. Nevin, who retired Dec. 31, had shuttered tire factories while shifting investment into auto service centers. As a result, productivity at Firestone's neglected tire plants is half that of Bridgestone's Japanese plants. General Motors Corp.'s 1988 decision virtually to cut off Firestone as a supplier didn't help. At the same time, foreign operations, typically a source of strength for Firestone, are being squeezed by price-cutting in Europe, economic dislocation in Latin America, and civil war in Liberia, where Firestone owns a large rubber plantation.



Bridgestone/Firestone isn't the only tiremaker that's suffering right now. Production cutbacks in Detroit in late 1989 and early 1990 hurt demand industrywide. The industry's operating rate fell from 89% in the first half of 1989 to about 84% a year later, says analyst Saul H. Ludwig of Cleveland's Roulston & Co. No. 1 tiremaker Michelin plans to cut 2,260 jobs in Europe. Faced with sagging profits, Goodyear has slashed 1,100 jobs from its sales force. But Bridgestone/Firestone, as usual, is suffering more than most. "During the years it was at Firestone, if Goodyear coughed, we were choking," says ex-CEO Nevin.

BACKPEDALING. The latest problems have scrambled Bridgestone's U. S. expansion plans. Late in 1988, the company announced a three-year, $1.5 billion capital spending campaign. But it soon began shifting gears. Although it's steaming ahead with a new truck-tire factory, Bridgestone has now backpedaled on other investments. The three-year spending program will be spread over four years. In Wilson, N. C., where the company expects to begin making Bridgestone brand tires in October, capacity won't be expanded as much as planned.

Cutbacks are also in store at Firestone's MasterCare auto service centers. The 1,550-outlet chain was the main growth vehicle of the Nevin era, and Bridgestone originally planned to add 300 new stores. Instead, it has put expansion plans on hold while a new manager reexamines the chain. In the meantime, Bridgestone is cutting jobs and considering selling 50 stores.

Greater reliance on tires makes it essential that the company sustain the progress it has already made. Highly regarded internationally for its tiremaking technology and efficiency, Bridgestone is improving quality and streamlining management at its U. S. operations. Several top officials have vacated their offices on the fourth floor of Firestone's old brick headquarters to move into open offices with their troops.

A push to upgrade Firestone's factories is starting to pay off in productivity, which was up by 4% in June, compared with a year earlier. Over the same period, the tire scrap rate fell by 52%, even though quality standards have ri

've seen them cut tires [as scrap] se of little blisters they used to ays Steven W. Gensler, local union ent at the Decatur (Ill.) plant. Nev- ess, the changes are costing the several thousand tires in daily pro- n as machines are rebuilt.

dgestone is also paring costs and Some departments are being re- by 10% to 30%. And there will be pruning of managers among the cuts to come. Still, the streamlining ing longer than company officials oped. Plainly concerned about the , Bridgestone sent Chairman Teiji ni to Akron last January to help h the merger. But the move seems

here are positive signs: ctory productivity is up, nd the tire rejection rate down 52% since last year

ve muddied the lines of authority— cry from the days of the decisive , former Firestone executives say. has been no wholesale replace- of American managers with Japa- but Bridgestone officials have re- taken key staff posts, while some tone managers have left.

BITE. There's one drag on Bridges- earnings that Firestone manage- can't do much about. Much of the Bridgestone incurred to buy Fire- was put on the U. S. company's . Since Firestone isn't making mon- can't deduct the interest it's paying e debt in the U. S. But the unit is g foreign taxes on its overseas s. The result: a huge increase in estone's consolidated tax bill.

ile big boosts in interest expense depreciation charges for capital in- ent also contributed, taxes—which med 87% of pretax income—were a eason for 1989's belly flop in earn- And taxes and merger costs could nt for $150 million of Firestone's s this year. To ease that problem, parent paid $200 million to "buy" tone's European operations, infus- ne U. S. company with capital it has to pay down debt.

th plenty of cash and vast assets, t Bridgestone can afford to make nvestments needed to get its Fire- operations up to world-class levels. he company is finding out it didn't any bargain by skimping on its work before stepping into the mid- f a bidding war. How do you say k before you leap" in Japanese?

Zachary Schiller in Akron, with Rog- hreffler in Tokyo

BusinessWeek

SAVE AT LEAST 15% OFF

the regular 1991 price with this special pre-publication discount offer (VALID UNTIL AUGUST 31st, 1990)

PLUS

Your chance to claim a leather security luggage tag as your bonus FREE GIFT when you order three or more items.

In U.S. Credit card holders may call

TOLL-FREE 800-247-2570

(in Iowa 800-362-2860)
Ask Operator 18 for Planners
Dept. BC3IDO1

PLANNERS

BIG SAVINGS

DESIGNED TO ORGANIZE YOUR FUTURE

PLUS FREE GIFT

Smart executives know there's no better choice of business gift than the prestigious – and equally smart! – BusinessWeek planners. They are great at organizing even the busiest working schedule. Featuring a full January through January week-to-view appointment calendar and 1991and 1992 monthly planning sections. Plus 90 pages of reference, business planning aids, full color Atlas, 30 City Profiles, 1991 Trade Shows and Conventions, a 2-year Forward Planner, Financial data on the world's largest banks and corporations . . . and more! Bound in rich bonded leather (your choice of black or burgundy) with gilt-edged pages and silken ribbon markers, and the option of having the BusinessWeek logo featured on the front cover or not.

The equally elegant matching Pocket Planner is available individually or as part of the specially matched Set.

CODE	PRODUCT	COLOR	1-3	4-24	25-49	50+	QTY	TOTAL US$
			US$	US$	US$	US$		
BW210	Planner Set Without B/Wk logo	Black	37.50	32.00	28.00	26.75		
BW206	Planner Set With B/Wk logo	Black						
BW226	Planner Set WIthout B/Wk logo	Burgundy						
BW220	Planner Set With B/Wk logo	Burgundy						
BW207	Desk Planner Without B/Wk logo	Black	27.25	24.00	22.25	21.25		
BW201	Desk Planner With B/Wk logo	Black						
BW216	Desk Planner Without B/Wk logo	Burgundy						
BW214	Desk Planner With B/Wk logo	Burgundy						
BW204	Pocket Planner	Black	14.50	11.45	10.45	9.35		
BW218	Pocket Planner	Burgundy						
Gold blocking of name per item			4.50					
Handling/Packing per item			1.75					

Prices include delivery by surface mail but do not include local duties or taxes.
Dispatch commences September

U.K. Residents add VAT at Prevailing rate.
N.J. Residents add 6% Sales Tax
TOTAL US$

Name (Mr Mrs Ms) _____
Company _____
Address _____
_____ City _____
State _____ Zip _____
Tel No _____ Job Title _____

☐ *I need more information on larger quantity discounts and customization options.*

☐ Payment enclosed. Check payable to BusinessWeek Planner
☐ Bill my Company (Purchase Order & Company letterhead required)
☐ Charge to ☐ AMEX ☐ DINERS ☐ MASTERCARD ☐ VISA
Card No _____
Signature _____
Exp. Date _____
Name to be blocked _____

Please mail to BusinessWeek Planners at: Dept BC3IDO1
P.O. Box 1597, Fort Lee, NJ 07024, USA. Fax 201 461 9808. or
25 Castle Street, High Wycombe, Bucks., HP13 6RU, England. Fax 44 494 465451. or
Suite C, 22nd Floor, 10 Ka Yip Street, Chaiwan, Hong Kong. Fax 852 5589246.

EDITED BY AMY DUNKIN

Finances

PICKING A PATH THROUGH THE PLASTIC JUNGLE

Ever since AT&T began offering a no-fee credit card in March, consumers have been taking a hard look at their plastic portfolios. And many have decided that the AT&T deal is too good to pass up. Indeed, 1.7 million people are already carrying the company's Universal Card, which comes as either a Visa or a MasterCard.

But there's more to consider than the annual fee when you're choosing a credit card. Interest rates and grace periods are just as important—in some cases, more so. Moreover, the no-fee option is hardly unique. Some issuers have been offering free Visas and MasterCards for years—and with lower interest rates.

Credit-card issuers keep coming up with new enhancements to get your attention. AT&T, for instance, offers a 10% discount on long-distance phone calls if you use Universal as a calling card. Citibank has quickly countered with a similar phone deal with MCI.

GOLD STANDARD. Then there's the extended warranties and buyer protection packages on items purchased with cards. These enticements are now offered by most gold cards and increasingly by some standard cards.

While such offers are intriguing, frills shouldn't weigh heavily when you're selecting a card. "The financial terms are the most important," says Elgie Holstein, director of the Bankcard Holders of America, a consumer group. "Most enhancements are found everywhere."

Even then, there is no one perfect piece of plastic for everyone. If you're among the 35% of the nation's card users who pay off their credit card bills in full each month, then yearly fees are a paramount concern. The average fee for standard bank cards is $18.65; a gold one fetches $38.68 on average.

As part of AT&T's introductory offer, the company will permanently waive the annu fee on its Visa and Maste Card. The offer expires yearend, but it might be e tended. Indeed, AT&T has y to establish any annual fee. return for this no-fee optio cardholders must use th card, which is issued by U versal Bank in Columbus, G at least once a year.

Some 150 other issuers a offer no-fee cards, and ma accept applications natio wide. Most don't have t name recognition of AT& and their standard Visa a MasterCard products may n have the latest credit-ca perks. But their versions a accepted at the same m

and often make better (table).

sider First National in Chicago Heights, Ill. ers a Visa and Master- or free. True, it charges terest rate of 18.96%. at shouldn't make a dif- e if you pay your bill in every month. Also, s no fee for Sears' Dis- Card, which has an in- rate of 19.8%. But with 1.1 million merchants on, it's not as widely ed as bank cards. Visa, stance, can be used at t 8 million locations wide.

attention to other fees ll. Robert B. McKinley, her of RAM Research's *card Update*, a Freder- d.) newsletter, says one ack to the AT&T card is ansaction fee for cash ces. The Universal Card es 2% or $5, whichever ater, on cash advances ned from banks. The um is $1 for automated machines. But there are aximum fees. By con- Citibank charges the 2%, but the top fee is l to $10.

other important feature rifty card users is the period. Most card issu- fer a period of 25 to 30 n which there are no in- charges. But you gen- lose this benefit if you over a balance to the month. Even new pur- s are subjected to fi- charges if you don't our previous bill in full.

RATES. Still, these are dary considerations if se your card's available . Then the monthly in- rate is critical. On aver- banks charge an annual ntage rate of 18.4% on ard Visas and Master- . Big issuers, such as ank, charge a hefty , almost double the e lending rate. How ? The banks claim that big rates compensate for added risk. Indeed, nk writes off about $1 a year in bad credit- debt.

s of lower-rate cards are ble. Arkansas Federal Savings, in Little Rock, charges 11.88% for its MasterCard and Visa. Key Bank of Western New York also has a good deal at 14.9%; however, the card is available only to residents of western New York counties.

McKinley notes that sponsors of lower-rate cards generally issue their cards to people with solid credit standings. You might also have to settle initially for a credit limit below the average $2,000 at which most cards start you off.

If you're looking for a no-fee, low-rate card, you might want to consider the Visa and MasterCard package offered by The Abbott Bank in Omaha. Its card carries an interest rate of 16.2%. This is a variable rate that's pegged 3 points below the average rate of the top 10 issuers. Abbott also offers the same kinds of perks available elsewhere, such as purchase protection and extended warranty.

Once you have selected the type of card best for you, you can take a look at enhancements. McKinley says not to be carried away with the latest craze: long-distance calling discounts. What counts is how frequently you use a calling card for personal or family matters. Remember, AT&T reserves the right to cancel your card if it determines you're using it for business.

GOOD DEALS. Despite the deluge of card offers in the mail these days, the best deals are often offered by issuers who don't do a lot of advertising. To get started in your search, you can write to Bankcard Holders of America (460 Spring Park Place, Suite 1000, Herndon, Va. 22070) for their lists of no-fee and low-rate cards. Each is available for $1.50. You can also send away to RAM Research's *Bankcard Update* (P. O. Box 1700, College Estates, Frederick, Md. 21701) for a list of low rate and no-fee cards. The cost: $5.

Then there's the Credit Card Locator Kit from the Consumer Credit Card Rating Service (P. O. 5219, Ocean Park Station, Santa Monica, Calif., 90405). The kit, which costs $14.95, offers guidance on selecting a card and has details on more than 1,000 cards nationwide.

You also might ask your own bank whether it has any deals on credit cards. Some offer a break on fees and interest rates depending on the number of banking services a customer uses. Many credit unions, which are nonprofit cooperatives, also offer their members no-fee, low-rate cards. Even as choices grow wider than ever, the best deal for you may be right in your own backyard. *John Meehan*

SOME NO-FEE CARDS FOR THE THRIFTY...

Issuer Visa and MasterCard	Telephone	Interest rate Percent
THE MORE CARD Evansville, Ind.	800 453-2017	21.90%
HOUSEHOLD BANK Salinas, Calif.	800 223-5279	21.00
FIRST NATIONAL BANK Chicago Heights, Ill.	800 635-3131	18.96
AT&T UNIVERSAL CARD UNIVERSAL BANK Columbus, Ga.	800 662-7759	18.90
PRIMERICA BANK (Gold cards) Newark, Del.	800 772-7775	18.75
SECURITY BANK & TRUST Southgate, Mich.	800 443-5465	18.00
SECURITY BANK OF MONROE Monroe, Mich.	313 241-6262	18.00
FIDELITY NATIONAL BANK Atlanta	800 753-2900	17.90
THE ABBOTT BANK Omaha	800 999-6977	16.20
MANUFACTURERS BANK Wilmington, Del.	800 635-8350	15.60

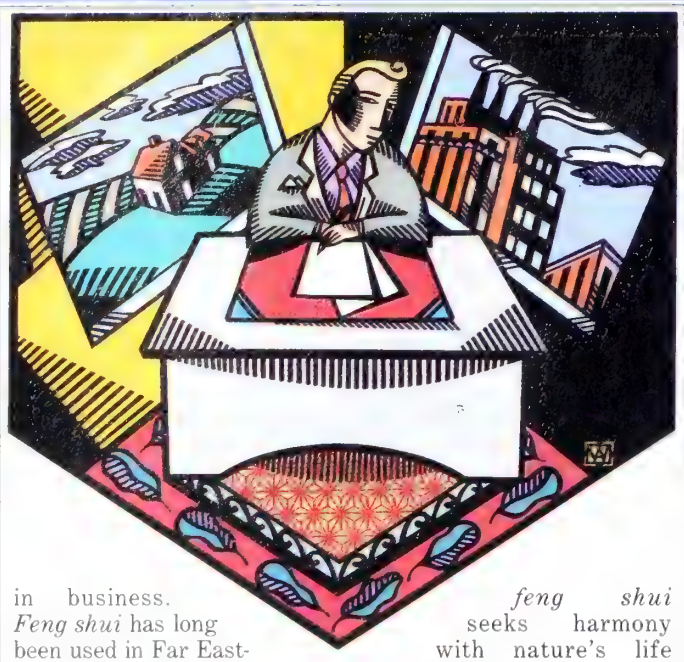
...AND LOW-RATE OPTIONS FOR HEAVY CREDIT USERS

Issuer Visa and MasterCard	Telephone	Annual fee Dollars	Interest rate Percent
BANK OF HAWAII (Visa) Honolulu	808 543-9611	$15	16.50%
CHAMPION FEDERAL SAVINGS & LOAN Bloomington, Ill.	800 322-7070	20	15.90
CONNECTICUT NATIONAL BANK East Longmeadow, Mass.	800 431-4011	25	15.00
FIDELITY NATIONAL (Visa Gold) Atlanta	800 753-2900	30	14.90
FIRST ATLANTA BANK Wilmington, Del.	800 241-7900	25	14.88
OHIO SAVINGS BANK Cleveland	800 962-2025	18	14.75
BANK OF DEERFIELD Deerfield, Wis.	608 764-5411	12	14.52
PEOPLE'S BANK Bridgeport, Conn	800 423-3273	25	13.50
ARKANSAS FEDERAL SAVINGS Little Rock	501 224-7283	35	11.88

DATA: BANKCARD HOLDERS OF AMERICA, BW

Design

A CHINESE ART FOR CHANGING YOUR FORTUNE



After graphic artist Milton Glaser moved his mid-Manhattan studio from the ground floor to the second floor a few years ago, the office was burglarized six times. Instead of moving again, he installed a tank with six black fish to ward off evil. He also added some red drawers and hung a tiny clock on the front wall.

All on the advice of an expert—an expert, that is, in *feng shui*, a Chinese art rooted in the belief that changing your environment in certain ways can improve your luck. Maybe it was just coincidence, Glaser says, but "I didn't have any more robberies."

HARMONY. Odd as it seems, *feng shui* is catching on among Western entrepreneurs, architects, and others who seek a competitive edge in business. *Feng shui* has long been used in Far Eastern business capitals, where consultants are paid by the square foot. "You just do it in Hong Kong—it's like an engineering survey," says William Doyle, a former Chase Manhattan Bank executive who spent time there.

A mix of old teachings, such as the *I Ching*, with superstition and common sense, *feng shui* seeks harmony with nature's life force, or *ch'i*. Translated from Chinese, *feng shui* means wind and water—the forces thought to determine health, prosperity, and luck, writes New York consultant Sarah Rossbach in *Feng Shui: The Chinese Art of Placement*.

NO SURPRISES. Rossbach follows a few guiding principles for harmonizing unbalanced offices. Desks, for instance should sit catercorner to th door, with occupants facin the entrance. Then they won be startled by visitors an lose their train of though thereby unbalancing *ch'i*. Th door to the office should n have a window, since othe people can see in, putting th occupant on the defensive.

Offices should also be fre of sharp corners or column If not, mirrors can play a rol They help deflect *ch'i* awa from jutting edges, which a considered threatening.

Pay attention to colors. T the Chinese, red—like fire— connotes warmth, strengt and even happiness. If yo want power, choose deep re purple, or plum—the "heart of red, which inspires respec The worst color is also one o the most common: white. It the equivalent of black Westerners, and symbolize mourning and death.

Some of this may require leap of faith, and even *fe shui* masters don't promis miracles. But their teaching make practical sense—even they can't ensure success o the job. *Michele Gal*

Smart Money

AGRISTOCKS DELIVER A BURST OF GROWTH

The agriculture business is booming these days, and that has renewed interest in stocks of companies that process crops for food products and industrial purposes. "With the U. S. going back to being the breadbasket of the world, food processors are selling more of their products and at higher prices," notes John McMillin, a food industry analyst at Prudential-Bache.

Corn is a key crop for most of these companies. After averaging 68 million acres in each of the past few years, corn planting is expected to increase to 75 million acres this year and 79 million in 1991.

That's one reason Archer Daniels Midland, a leading processor of such commodities as corn and oilseed, appears often on Wall Street lists of recommended ag stocks. From 1984 to 1989, the company had a compounded earnings growth rate of 28.4%. Analysts expect its earnings to be $1.71 a share this year and $2 in 1991, up from $1.52 last year.

The Clean Air Act amendments of 1990 should boost Archer Daniels shares further. The legislation, which has passed the House and Senate, would mandate increased use of oxygenated fuels, such as gasohol, in at least the nine smoggiest U. S. cities by 1992. The company has 75% of the domestic market for ethanol—alcohol made from corn and sold as a gasoline additive.

American Fructose is also a favorite of some stockpickers. Demand is now increasing for high-fructose corn syrup from food and beverage companies, resulting in high er profit margins. Le Tawes, an analyst at Oppen heimer & Co., expects Ameri can Fructose shares to go a high as $35 next year, u from about $22 now.

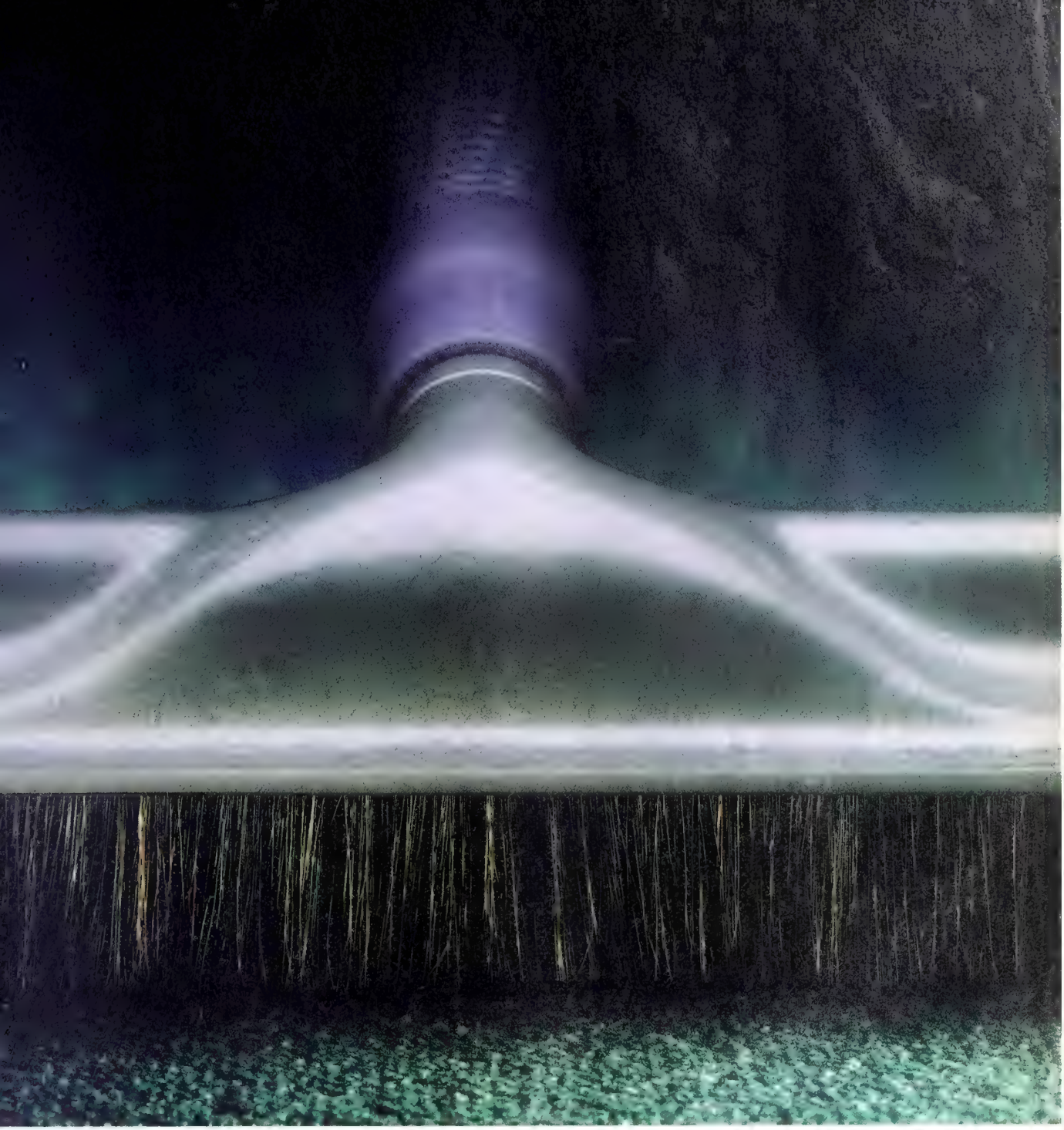
PEAKING? Wall Street is als bullish on corn-seed suppl ers, such as Pioneer Hi-Bre International. Says McMillin "I look for the stock to be a $60 next year." Pioneer' shares are now around $41.

But some hot stocks ma have peaked. The shares o Penwest, which processe corn into starch for the pa per industry, have nearl doubled this year. "We lov the company," says Georg Dahlman of Piper Jaffra Hopwood in Minneapolis "but we think the stock ha gotten a little exuberant. Still, as long as the farmin business remains strong, i vestors should discover o portunities in agristocks *Jon Friedma*

AG STOCKS TO WATCH

	Share price 1/24/90	Share price 7/24/90
AMERICAN FRUCTOSE AMEX	19⅞	21¾
AMERICAN MAIZE AMEX	17⅛	19⅜
ARCHER DANIELS MIDLAND NYSE	19⅜	24¾
PENWEST NASDAQ	17½	30½
PIONEER HI-BRED NASDAQ	39¾	40¾

DATA: BRIDGE INFORMATION SYSTEMS INC.



T ALASKA AIRLINES, WE BRUSH AFTER EVERY MEAL.

We also dust, sweep, scrub and sh. Whatever it takes to keep our nes neat and tidy.

That's why we not only vacuum seats, we also vacuum the seat kets. We don't just sweep our car-s, we regularly steam clean them.

And on a regular basis, we spend 36 worker-hours "deep cleaning" the entire aircraft. Why do we go to all this trouble? Because we know how you feel about messy airplanes. So along with friendlier people, tastier meals and roomier seats, we'll do all we can to make sure you fly in a clean cabin.

Next trip to or from California, the Pacific Northwest, Arizona, Alaska or Mexico, take off on Alaska Airlines. We can promise you a clean getaway.

Alaska Airlines

Let the Poor and Hungry Feed Themselves!

For just $100 they can.

Since 1961, ACCION International has been helping the poor and hungry feed themselves in poor urban and rural communities throughout Latin America and the Caribbean. In these desperately poor communities, we've been providing hard-working men and women with otherwise unattainable fair-rate small business loans. Without these fair-rate loans, thousands of shoemakers, [illegible]ans and street vendors would be unable to make a living. But thanks to ACCION, people who only one year ago were barely able to keep their families alive, today have paid their loans back in full and have been given a chance to better their lives.

More importantly, they've been given back their dignity. All it takes is for you to believe in them.

For more information or to send a contribution, write to ACCION International, 1385 Cambridge St., Cambridge, MA 02139 **617-492-4930.**

ACCION International

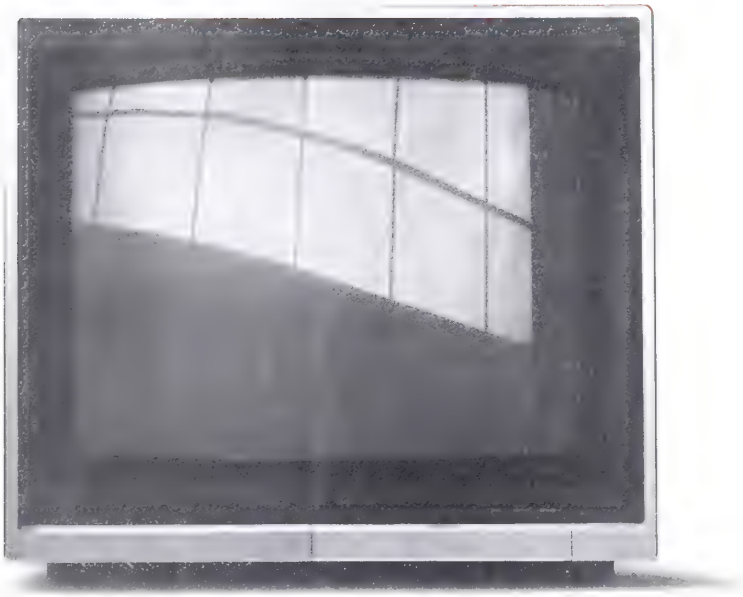
S6B-CA

You may be
pleased to note
that the words
"trendy,"
"postmodern,"
and "avant-garde"
do not apply
to all small
New York hotels.

THE MARK

A New York Hotel. Madison Avenue at East 77th Street. (212) 744-4300. For reservations, call (800) 843-6275.

86C-CA



Turn On The Meeting.

Just touch a button. And instantly make your presence felt like never before.

Meet face-to-face with 30 branch managers at once. Coordinate product development with your marketing, engineering and manufacturing sites. Speed up the decision making process. Imagine the possibilities.

Meet the future of meetings. Video Communication Services from Pacific Bell. Or, how to be everywhere at once – without going anywhere at all.

Pacific Bell can provide the diverse range of capabilities necessary to meet all your company's video teleconferencing needs today. In a system that brings you the reliability of our transport network, connected to the highest quality hardware available.

And of course, Pacific Bell will handle everything. From design to installation to on-going support.

After all, we have our fair share of experience. Immediately following the October 17th earthquake in the Bay Area, we coordinated a system that allowed for critical video communication among three key emergency agencies in Sacramento, San Francisco and Mountain View.

"The unanimous response of all participants was extremely favorable," said Jon Madzelan, Chief of Telecommunications for the Office of Emergency Services in Sacramento. "We all now wonder if we could have done as well without it! I doubt it."

Now it's your turn. For full details and a demonstration, contact your Pacific Bell Account Executive, or call 1-800-622-0735, ext. 201.

Video teleconferencing from Pacific Bell. You've got to start meeting like this.

We're making things easier.™

A PACIFIC TELESIS COMPANY

PACIFIC BELL
Data Communications Group

86D-CA

ex to Companies

ex gives the starting page for a story or fea-
n a significant reference to a company. Most
ries are indexed under their own names.
ies listed only in tables are not included.

Brown Boveri 42
ank 84
Freight 70
ipeline Service 74
Hess 74
Express 48
Fructose 86
re Investors 31
42
, 72
aniels Midland 86
Federal 84
arch 26
ichfield 74

ternational 48
72
ne 82
yers Squibb 64
troleum 74
ng 30

Cities/ABC 64
Partners 38
Schwab 38
70
0
84
a Savings 38
26, 27
er Associates
tional 71
48
Brands 48

Hudson 48
quipment 26
on Lufkin &
e 38
emical 64
27, 38, 48, 66

E

Eastman Kodak 27
Elsie Y. Cross Associates 55
ERC 70
Ernst & Young 71
Ethicon 55
Exxon 48, 74

F

Federal Express 32
Fiat 42
First Boston 66
First National Bank 84
FMC 27
Foote, Cone & Belding 62
Ford Aerospace 38
Forty Acres and a Mule 62
Fujitsu 26

G

Gannett 48
GEC-Alsthom 42
General Electric 38, 79
General Mills 48
Geotel 33
GM 42, 56, 82
Goodyear Tire & Rubber 82
Gordon America 38
Groupe Bull 26
Grumman 33

H

Hardee's 30
Hewlett-Packard 26
Hitachi 26
Hoesch 42
Honeywell 48

I

IAM/Secure Data Systems 71
IBM 26, 27, 64, 71
ICL 26
Intel 27, 28
International Data 26
InterVoice 79
Investment 7
ITT Semiconductors 79

J

Johnson & Johnson 48, 55

K

Kelly Services 48
Key Bank 84

L

Levi Strauss 62
Lockheed 33
Lomas Financial 66
Loral 38
Lotus Development 72

M

Magnetek 42
Martin Marietta 38
McDonald's 30, 64
MCI 84
Merck 38
Merrill Lynch 66
Michelin 82
Microsoft 27
MicroSolutions 27
Minolta 79
Mobil 74
Monet 48
Morrison Knudsen 66

N

National Intergroup 38
NCNB 68
NEC 26
Nike 62
NK Biotechnical Engineering 7
Northrop 33
Nynex 71

O

Ogden 70
Olin 48
Olivetti 26
Olympia & York 68

P

Payless Cashways 48
Pennzoil 70
Penwest 86
Peugeot 26
Pfizer 70
Philip Morris 64
Phillips Petroleum 74
Pioneer Hi-Bred International 86
Pirelli 82
Pitney Bowes 48
Primerica 31
Procter & Gamble 48
Prudential Insurance 56, 68

Q

Quintus 42

R

Reebok 62
Reliance Group Holdings 42
Reuters Holdings 64

S

Salomon Brothers 66
Sea Containers 70
Sears 84
Sequent 26
Shearson Lehman Hutton 38, 56
Shoney's 30
Siemens 42
Silicon Graphics 26
Sit/Kim International 7
Smith Corona 7
Sony 28
Square D 48
STC 26
Storage Technology 64

T

Taco Bell 30
Tanaka Capital Management 70
Tandem 26
Tandon 26
Texas Instruments 64
TIAA-CREF 48
Travelers Insurance 27

U

Unisys 26, 56
United Parcel Service 32
United Savings Bank 68
United Telecommunications 64
Universal Bank 84
Universal Pictures 62
Unocal 74
U.S. West 48

V

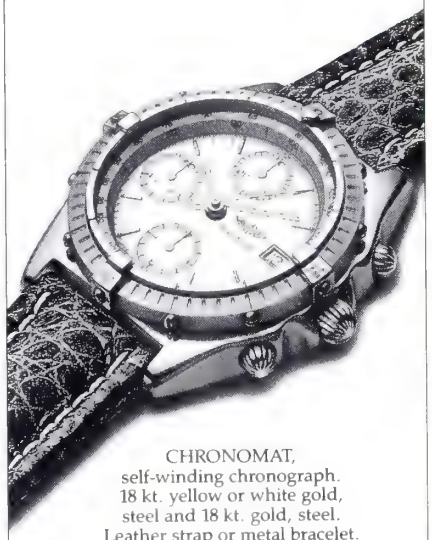
Volkswagen 42

W

Walt Disney 66
Washington Post 14, 48
Westinghouse Credit 68
Williams (A.L.) 31

BREITLING
1884

INSTRUMENTS
FOR PROFESSIONALS



CHRONOMAT,
self-winding chronograph.
18 kt. yellow or white gold,
steel and 18 kt. gold, steel.
Leather strap or metal bracelet.

WORLD
EQUESTRIAN
GAMES
STOCKHOLM
1990
OFFICIAL TIMING
BREITLING

BREITLING USA INC.
TWO STAMFORD LANDING, SUITE 165,
STAMFORD, CT 06902
TEL.: 203/327 14 11
FAX: 203/327 25 37

Kodak copier representatives will do whatever it takes to guarantee your total satisfaction with Kodak copiers, people and service. Whatever it takes.

Nobody's ever offered a copier guarantee like this. But then nobody else has copiers like the award-winners from Kodak. Nobody has Kodak's heritage of quality products and caring people—plus the best service in the business! So we can confidently offer to do whatever it takes to make you a totally satisfied Kodak copier customer. Because, chances are, we're already doing it.

Put us to the test. We're not all as limber as the guy above, but every one of us is an expert at satisfying customers. For details, call 1 800 255-3434, Ext. 154.

THE BEND OVER BACKWARDS COPIER GUARANTEE FROM KODAK

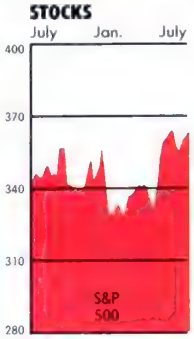
Kodak copiers. Ask any customer.

vestment Figures of the Week

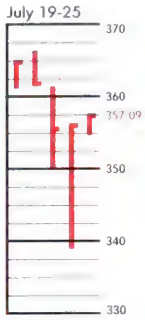
NTARY

ttling week in the financial here and abroad. Appre- over the economy, along oate of negative earnings , sent stock prices reeling days in a row. The Dow dustrial average fell 108 the first hour of trading 23, closing down 56 he Tokyo exchange had worse week, falling .S. oil stocks and gold ere spared from the r, rising because of ten- the Middle East.

STOCKS

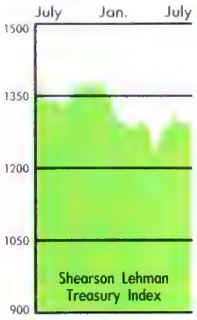


52-week change +5.6%

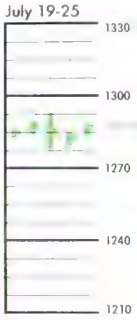


1-week change −2.0%

BONDS

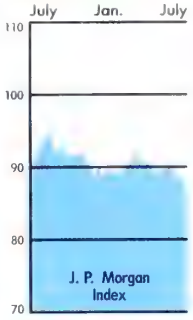


52-week change −4.6%



1-week change −0.1%

THE DOLLAR



52-week change −5.3%

1-week change −0.3%

RKET ANALYSIS

TOCKS	Latest	% change Week	% change 52-week
ONES INDUSTRIALS	2930.9	−1.7	12.2
MPANIES (Russell 1000)	185.1	−2.1	3.9
COMPANIES (Russell 2000)	163.7	−2.5	−5.6
MPANIES (Russell 3000)	196.9	−2.1	3.2

N STOCKS	Latest	% change (local currency) Week	% change (local currency) 52-week
(FINANCIAL TIMES 100)	2364.7	−1.6	4.4
(NIKKEI INDEX)	31,701.3	−4.1	−8.2
O (TSE COMPOSITE)	3554.4	−0.7	−9.7

FUNDAMENTALS	Latest	Week ago	Year ago
90-DAY TREASURY BILL YIELD	7.8%	7.8%	8.3%
30-YEAR TREASURY BOND YIELD	8.6%	8.6%	8.1%
S&P 500 DIVIDEND YIELD	3.3%	3.2%	3.3%
S&P 500 PRICE/EARNINGS RATIO	16.5	16.7	13.2

TECHNICAL INDICATORS	Latest	Week ago	Reading
S&P 500 26-week moving average	345.6	344.6	Positive
Stocks above 26-week moving average	42.1%	50.1%	Neutral
Speculative sentiment: Put/call ratio	0.42	0.30	Positive
Insider sentiment: Vickers sell/buy ratio	1.25	1.21	Positive

USTRY GROUPS

BRIDGE INFORMATION SYSTEMS INC.

VEEK LEADERS	% change 4-week	% change 52-week	Strongest stock in group	% change 4-week	% change 52-week	Price
LS	12.4	6.3	PHELPS DODGE	16.7	26.8	67⅜
ELL EQUIPMENT AND SERVICES	11.6	47.0	HALLIBURTON	15.0	52.7	53⅝
MINING	10.2	18.8	PLACER DOME	11.9	10.9	16½
NATIONAL OIL	8.8	19.5	CHEVRON	14.3	40.6	78¾
ND GAS DRILLING	8.4	32.9	ROWAN	14.6	59.4	13¾

VEEK LAGGARDS	% change 4-week	% change 52-week	Weakest stock in group	% change 4-week	% change 52-week	Price
UTER SOFTWARE AND SERVICES	−17.1	−3.4	COMPUTER ASSOCIATES INTL.	−39.7	−49.7	9⅛
	−11.8	−5.8	MATTEL	−13.8	32.0	21⅛
-DISTANCE TELECOMMUNICATIONS	−11.4	−2.4	UNITED TELECOMMUNICATIONS	−27.8	−22.4	27¼
S AND MOTELS	−9.5	−47.6	PRIME MOTOR INNS	−22.9	−78.8	6¾
EBUILDING	−9.4	−32.0	KAUFMAN & BROAD	−17.5	−44.1	10

TUAL FUNDS

MORNINGSTAR INC

RS

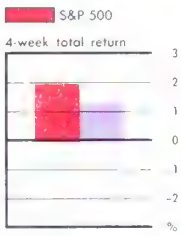
k total return	%
IAM GOLD EQUITIES INDEX	10.6
ICHARD PRECIOUS METALS	9.9
IMORE PRECIOUS METALS INDEX PLUS	9.8

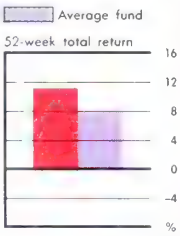
k total return	%
TY STRATEGIES	66.9
ITY SELECT BIOTECHNOLOGY	53.9
NCIAL STRATEGIC HEALTH SCIENCES	49.5

LAGGARDS

Four-week total return	%
PRUDENT SPECULATOR LEVERAGED	−5.2
ROCHESTER GROWTH	−5.2
AFA NATIONAL TELECOMMUN. & TECHNOLOGY	−4.8

52-week total return	%
NATIONAL REAL ESTATE INCOME	−18.6
FIDELITY SELECT BROADCAST & MEDIA	−18.5
WASHINGTON AREA GROWTH	−17.4





ATIVE PORTFOLIOS

DATA RESOURCES INC.

amounts
nt the present
f $10,000
d one year
each portfolio

ages indicate
total returns

Money market fund	U. S. stocks	Treasury bonds	Gold	Foreign stocks
$10,712	$10,610	$10,332	$9,901	$9,607
+0.15%	−3.19%	−1.37%	+2.22%	−2.04%

on this page are as of market close Wednesday, July 25, 1990, unless otherwise indicated. July 24. Mutual fund returns are as of July 20. Relative portfolios are valued as of July 24. A more groups include S&P 500 companies only; performance and share prices are as of market close detailed explanation of this page is available on request.

Editorials

THEY HAVEN'T COME FAR ENOUGH, BABY

It is true that women have come a long way in American business, but they still have a long way to go. There are only a handful of large corporations that have promoted women into upper management. Most women are still mired in the middle ranks or sidelined in nonoperating jobs. Put another way, there are still far too many talented executives who, because they are women, lack the influence or career opportunities of their colleagues.

Years ago, when women began joining Corporate America in large numbers, many male executives didn't believe that they could do the job. That doubt seems quaint today. In industry after industry, female managers and professionals have proved their competence and contributed greatly. And they have sometimes done so in spite of subtle discrimination or even outright hostility from men.

The conflicting demands of work and family play a part in this state of affairs. Employers can do much more to help women balance their responsibilities by offering such benefits as flexible scheduling and part-time options. But American companies also need to examine their own corporate cultures and to change those vestigial barriers that stand in the way of women's success.

America's woman-friendly corporations (page 48) can point the way. Companies where women are advancing smartly are challenging traditional practices, assumptions, and attitudes of corporate men. With strong leadership from their CEOs and other top executives, they are setting goals to raise the number of women managers, establishing career development programs for talented women, and promoting women from staff jobs to line responsibility. They are attacking bias and raising awareness, and even linking compensation to how well managers help meet these goals.

Such employers have gone beyond affirmative action or even the notion that promoting women is the right thing to do. They have come to the realization that ignoring talented executives just because they are women puts their companies at a competitive disadvantage. At a time when shortages of able managers and white male entrants to the job market are widely predicted, managing—and valuing—diversity has become essential.

ADVICE AND CONSENT —WITHOUT RANCOR

Far more than Judge David H. Souter's fate will be at stake this fall when the Senate Judiciary Committee [illegible] up his nomination by the President to the Supreme Court. The Souter hearings could determine for years to come how the Senate will fulfill its constitutional responsibility to give the President advice and consent on his judicial selections.

In the past, confirmation hearings to fill Supreme Court vacancies have been anomalies. It was considered injudicious for Supreme Court nominees, unlike those seeking Cabinet posts, to answer substantive questions about the kinds of policies they would support. Instead, the hearings focused on the nominees' experience and the recommendation of the American Bar Assn. The bitter 1987 confirmation battle over former Judge Robert H. Bork was one of the exceptions, partly because he was a prolific—and provocative—writer on some of the most emotional issues of the day, from abortion to civil rights. What's more, the Reagan Administration knew it was sending up a controversial nominee—and Senate Democrats responded in kind.

Now, the question is whether the Bork proceeding or the more temperate confirmation hearings for Justices Antonin Scalia and Anthony M. Kennedy will be the precedent for the future. Senators should not be rubber stamps. They should make a searching inquiry into the qualifications of Judge Souter or anyone else who comes before them. But there should be no litmus test on abortion or any other subject. That approach just encourages the White House to pick nominees with no footprints. That's no way to assure that the finest legal minds in the country are nominated to the high court.

FOR LAWYERS, A LITTLE HUMILITY

The tables have been turned on the snooty corporate law firms of yesteryear. They are scrambling for survival instead of turning away corporate clients, as they were only a few years ago. They're merging or forming alliances around the world. They're raiding competitors for clients with deep pockets and partners with hot specialties. They're firing associates. And they're working harder to please clients, with better service and more competitive rates.

Competition among top law firms is intensifying at a dizzying pace. Demand is down because of the flat economy in recent months and the swelling ranks of corporate law departments. General counsels these days not only handle more work in-house, but they're more cost-conscious.

That's certainly good news for companies. For too long, corporate law firms brushed aside their roles as suppliers of legal services, acting instead as though it were a privilege to be their client. Such firms also ignored cost controls, covering their soaring expenses simply by hiking fees.

The new competitive environment has another key benefit. It forces lawyers to be more accountable for the quality and efficiency of their work. In the good old days, firms would send clients one-line bills for six-figure amounts, and balk if they were questioned further. Now, clients want detailed estimates and bills. And they fire firms that don't comply.

All this is certainly good for the law profession as a whole. But the changes should extend further. The primary beneficiaries of the emerging legal-service business so far are corporate clients. Individuals, with less clout and capital, deserve the same levels of accountability, attention, and cost-effectiveness from their attorneys.

August 13

PERESTROIKA: HOW IT'S REALLY WORKIN

3 9042 02349982 2

-QUAR
F 900 COMP
PAGE 58

BusinessWeek

AUGUST 13, 1990 A McGRAW-HILL PUBLICATION $2.00

ARE WE IN RECESSION?

BURLINGAME
AUG 2 1990
LIBRARY

No

Unemployment is still low and the economy is still growing, however slowly.

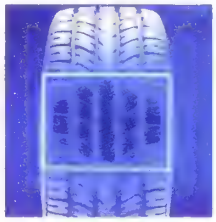
Yes

The usual numbers are highly suspect. Besides, the old definition just doesn't apply in today's economy. Call it what ou want, these are ugh times.

BURLINGAME PUBLIC LIBRARY
480 PRIMROSE RD
BURLINGAME CA 94010
0602 10581116O SEP91 T02
**********CAR-RT-SORT**CR30
43675

ONLY ON

The World Championship-winning Mercedes-Benz team now uses only one make of tires: Goodyear Eagles



Mercedes-Benz is known throughout the world for quality, technical innovation and engineering brilliance.

Nowhere are all of those qualities more apparent than in the highly exotic and very sophisticated Championship-winning Mercedes-Benz race cars.

These are the cars that, in 1989, won seven of the eight [illegible] that constitute the FIA

E A G L E S.

Sports-Prototype Championship.
se are the cars that set new records at the
ınning of the 24 Hours of LeMans.
pite of these successes, these cars have now,
), changed to Goodyear Eagle racing radials.
l are pursuing the 1990 World Championship
odyear Eagle racing radials. Exclusively.
neet the demands of Mercedes-Benz newest
stest racing cars takes very special tires.
lt to perform at the outer edges of tire tech-
, these tires are designed with a knowledge, experience and skill that no other tire company possesses.

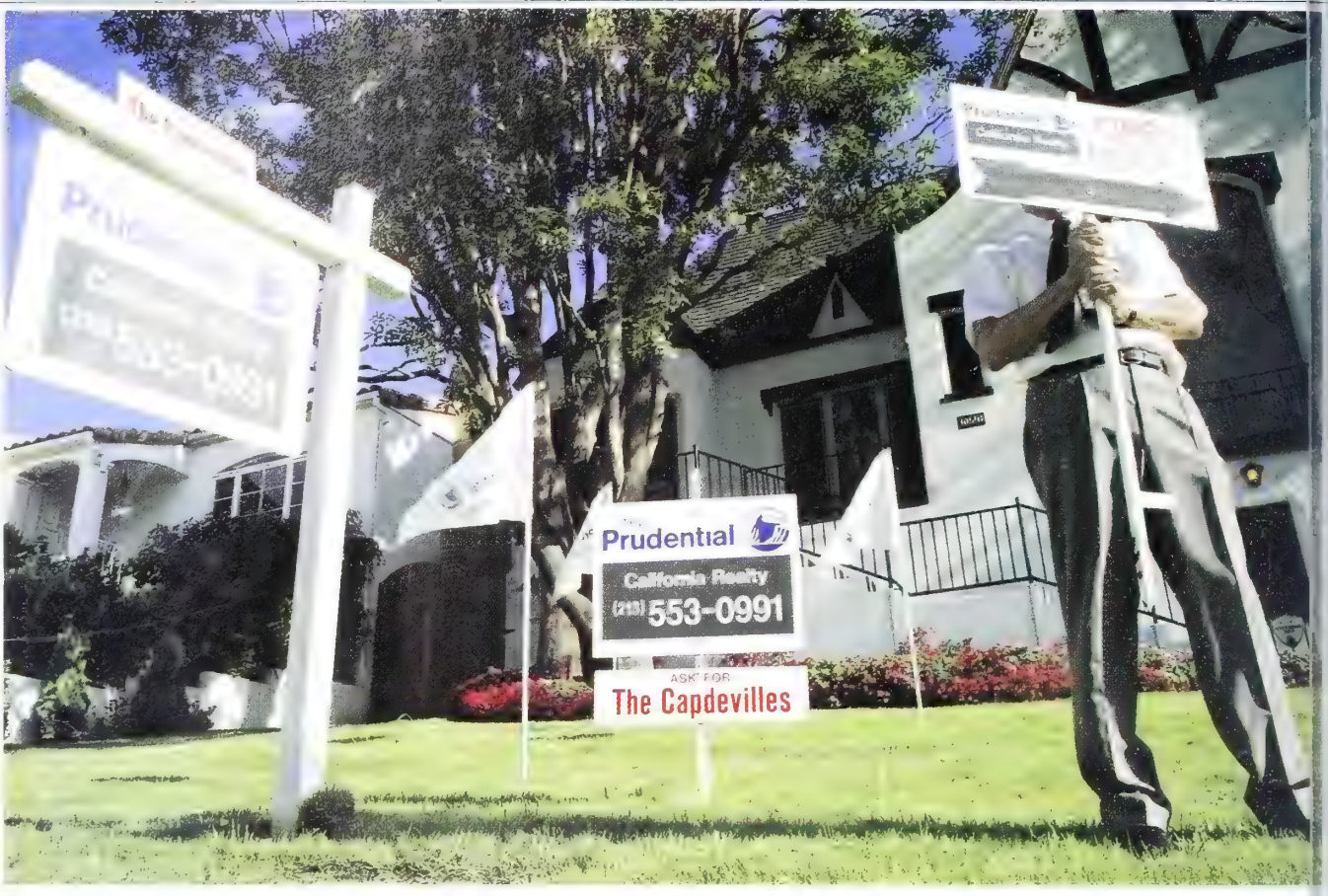
That knowledge, together with our selection for world-beating cars like the Mercedes-Benz C11, are just two of the reasons why we say:

The best tires in the world have Goodyear written all over them.

GOODYEAR

The best tires in the world have Goodyear written all over them.

NUMBER 3173 **BusinessWeek** AUGUST 13, 1990



FROM CALIFORNIA TO CONNECTICUT, CONSUMERS' CONFIDENCE AND SPENDING ARE FALLING—ALONG WITH THE VALUE OF THEIR HOMES

Cover Story

28 ARE WE IN A RECESSION?
In the 1980s, the U. S. overborrowed, overbuilt, and overspent. Today, signs of a slowdown are everywhere: Household budgets are tighter, banks are lending less, state taxes are being raised, and Washington is debating a deficit-cutting package in earnest. Worse, no sector is contributing much strength to the economy—and corporate profits are anemic. Call it what you like, we're in for tough times

32 THE BUCK STOPS HERE
A recession isn't official until the economists at the National Bureau of Economic Research say so

Top of the News

34 DISCRIMINATION GETS PRICEY
Democrats are pushing for a new civil-rights bill that would allow jury trials and punitive damages

35 COMMENTARY
A sane strategy for solving the asbestos crisis

36 TOO MUCH FREIGHT AT CF
Picking up Emery dragged down profits—and led to the CEO's exit

38 COMMENTARY
George Steinbrenner, superdad

38 LIZ CLAIBORNE'S GIVEAWAY
Its generous discounts to retailers could earn it more shelf space

40 REMAKING THE REMAKE
Yet another Continental overhaul

42 MAGIC'S THREE-POINTER
Johnson has a sweet deal with Pepsi

44 IN BUSINESS THIS WEEK
Phone deregulation, Ford and Fiat, Fujitsu, Stotler, TMC's moviethon, Reebok's boss, Pelullo and Posner

International

48 GRASS-ROOTS *PERESTROIKA*
Leningrad: St. Petersburg once more
Kazakhstan: Rich land, poor people
Sakhalin: Next Pacific Rim tiger?

53 SOVIET UNION
No longer flush with hard currency the nation is selling assets and scrambling for credit

54 SOVIET UNION
Oil cuts are hurting Eastern Europe

55 INTERNATIONAL OUTLOOK
Can Southeast Asia overcome its economic rivalries and hang together without the cold war?

Economic Analysis

18 ECONOMIC VIEWPOINT
Blinder: Repairing the highways

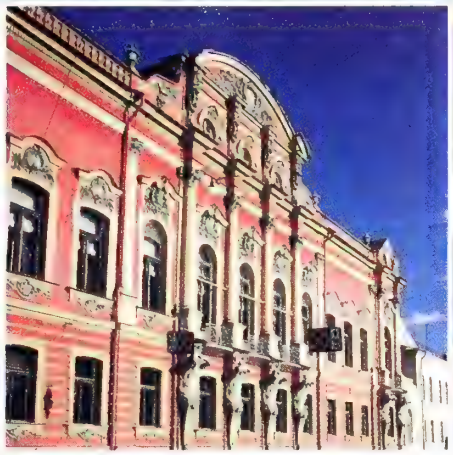
23 ECONOMIC TRENDS
The deficit, Fed policy, trade-gap numbers, wholesale prices stabilize

25 BUSINESS OUTLOOK
The GNP shows half a recession

Government

47 WASHINGTON OUTLOOK
Senate Majority Leader Mitchell: A mild-mannered arm-twister who has the Republicans yelping

4 DILEMMA AT DIGITAL: JOHN SMITH HAS TO REVERSE THE SLIDE AT DEC—BUT HE CAN'T REVERSE THE MARKET'S SHIFT FROM MINIS TO CHEAPER DESKTOP MACHINES



48 HOME RULE IN THE SOVIET UNION: FED UP WITH EMPTY COFFERS AND KREMLIN FOOT-DRAGGING, NEW LOCAL LEADERS ARE PUSHING CAPITALISM—EVEN IN LENINGRAD

108 THE DILETTANTE DEALMAKERS: GORDON GETTY IS MAKING MORE HOSTILE TAKEOVER TRIES AS WIFE ANN KEEPS A LOW PROFILE AFTER HER ILL-STARRED FORAY INTO PUBLISHING

Corporate Scoreboard

8 STUCK IN THE SLOW LANE
A few industries thrived, but profits for most were weak in the first half—and they're getting weaker

Marketing

6 GENENTECH'S GREAT SAVE
A marketing coup blunts the impact of a study questioning the effectiveness of the drug TPA

Finance

8 A $6 TRILLION MONSTER
Now, the government is fretting about S&L-like crises in a host of loan guarantee programs

0 POUNDING A PENNY-STOCK FIRM
Indicted by a grand jury, Blinder Robinson looks headed for the big boiler room in the sky

2 'KING OF LOW-TECH LBOs'
Clayton & Dubilier agrees to buy IBM's office-equipment branch

4 INSIDE WALL STREET
Amgen's one-two punch
Is Nicolet learning Japanese?
Sandy Weill's savvy spin-off

7 INVESTMENT FIGURES OF THE WEEK

The Corporation

6 HOTELS FACE DOWN THE '90s
Sheraton: Tidying up at home
Promus: A daring expansion
Super 8: No frills is good news

People

108 RICH PAIR, POOR MOVES
Gordon writes operas, Ann's back in school. Meet the Gettys

The Arts Business

110 AGONY AND ECSTASY
For art dealers, sky-high prices but less independence

Sports Business

112 COMMENTARY
Business has a role at Shoal Creek: It should withdraw support

58 THINGS ARE TOUGH ALL OVER: TAKE RISING BUSINESS COSTS, ADD WEAKENING DEMAND, AND YOU'VE GOT A CORPORATE SCOREBOARD THAT POINTS TO A PLODDING SECOND HALF

Information Processing

114 STEMMING THE DECAY AT DEC
Overstaffed and underproductive, it's planning a radical reorganization

Science & Technology

116 STEP BY STEP WITH NIKE
A look at the lab and road tests behind the Air 180

119 A NEW TAKE ON ALZHEIMER'S
Evidence points to two genes that cause it to strike at different times

120 DEVELOPMENTS TO WATCH
Disease-battling buds, gene therapy, 'smart' lenses, high-yield popcorn, rooster aphrodisiac

Personal Business

122 COLLECTING: Sports memorabilia
RETIREMENT: Bargains in Mexico
HEALTH: Protective sunglasses
SMART MONEY: Betting on Detroit

Features

4 BUSINESS WEEK INDEX

6 READERS REPORT

10 CORRECTIONS & CLARIFICATIONS

14 BOOKS
Shapiro: *The Shadow in the Sun*

125 INDEX TO COMPANIES

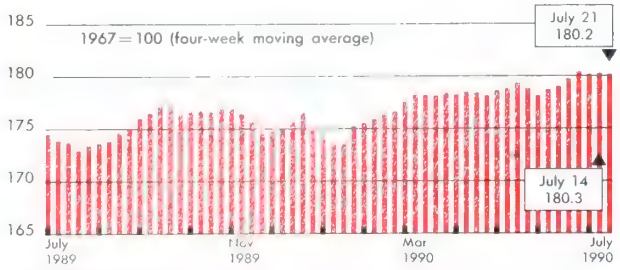
128 EDITORIALS
Let's fight the right economic war
The economic compass needs fixing
Go easy on Fannie and Freddie

ess Week (ISSN 0007-7135) published weekly, except for one issue in January, by McGraw-Hill Inc. U. S. subscriber rate $39.95 per year. In Canada, one year: CDN $54.95. Single s $2.00. Executive, Editorial, Circulation, and Advertising Offices: 1221 Avenue of the Americas, New York, N. Y. 10020. Second-class postage paid at New York, N. Y., and at additional mailing s. Postage paid at Montreal, P. Q. Registration Number 9010. Title Reg. in U. S. Patent Office. **Postmaster:** Send address changes to BUSINESS WEEK, P. O. Box 430, Hightstown, N. J. 08520.

BusinessWeek Index

PRODUCTION

Change from last week: –0.1%
Change from last year: 4.2%

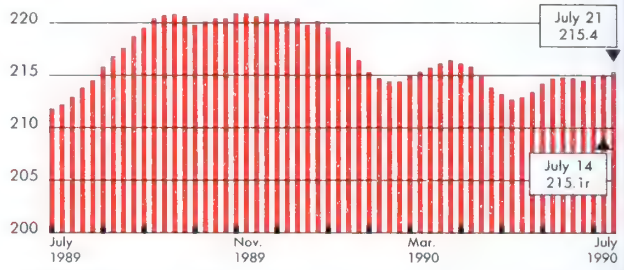


The production index decreased for the week ended July 21. On a seasonally adjusted basis, coal, lumber, and auto production was down sharply, with declines also posted in truck and paper production. Paperboard and rail-freight traffic increased, and output for steel, electric power, and crude-oil refining was unchanged. Prior to calculation of the four-week moving average, the index slumped to 180.7 from 181.3 in the week before.

BW production index copyright 1990 by McGraw Hill Inc

LEADING

Change from last week: 0.1%
Change from last year: 0.7%



The leading index increased slightly for the week ended July 21. Although the index has strengthened in recent weeks, it is still below its level of late March. Higher stock prices, lower bond yields, a smaller rate of decline in materials prices, and a fall in the number of business failures offset sharply slower growth rates for real estate loans and M2. Before calculation of the four-week moving average, the index edged up to 215.6 from 215.1 in the previous week.

Leading index copyright 1990 by Center for International Business Cycle Research

PRODUCTION INDICATORS

	Latest week	Week ago	% Change year ago
STEEL (7/28) thous. of net tons	1,845	1,847 #	0.0
AUTOS (7/28) units	86,517	90,433r #	2.6
TRUCKS (7/28) units	77,588	72,646r #	21.8
ELECTRIC POWER (7/28) millions of kilowatt-hours	63,003	62,558 #	–0.3
CRUDE-OIL REFINING (7/28) thous. of bbl./day	14,361	14,304 #	3.2
COAL (7/21) thous. of net tons	20,458 #	18,750	21.4
PAPERBOARD (7/21) thous. of tons	765.3 #	726.6r	0.3
PAPER (7/21) thous. of tons	746.0 #	730.0r	5.5
LUMBER (7/21) millions of ft.	486.4 #	442.8	–4.0
RAIL FREIGHT (7/21) billions of ton-miles	20.7 #	19.8	13.7

Sources: American Iron & Steel Inst., *Ward's Automotive Reports*, Edison Electric Inst., American Petroleum Inst., Energy Dept., American Paper Inst., WWPA[1], SFPA[2], Association of American Railroads.

FOREIGN EXCHANGE

	Latest week	Week ago	Year ago
JAPANESE YEN (8/1)	147	149	138
GERMAN MARK (8/1)	1.59	1.62	1.88
BRITISH POUND (8/1)	1.85	1.81	1.64
FRENCH FRANC (8/1)	5.33	5.44	6.36
CANADIAN DOLLAR (8/1)	1.15	1.15	1.18
SWISS FRANC (8/1)	1.35	1.38	1.62
MEXICAN PESO (8/1)[3]	2,873	2,867	2,515

Sources: Major New York banks. Currencies expressed in units per U. S. dollar, except for British pound expressed in dollars.

PRICES

	Latest week	Week ago	% Change year ago
GOLD (8/1) $/troy oz	370.650	372.750	0.2
STEEL SCRAP (7/31) # 1 heavy, $/ton	119.50	110.50	9.6
FOODSTUFFS (7/30) index, 1967 = 100	223.6	223.4	1.9
COPPER (7/28) ¢/lb.	127.5	126.9	7.1
ALUMINUM (7/28) ¢/lb.	74.3	73.0	–8.6
WHEAT (7/28) # 2 hard, $/bu.	3.05	3.08	–27.4
COTTON (7/28) strict low middling 1-1/16 in., ¢/lb.	79.77	79.55	16.4

Sources: London Wed. final setting, Chicago mkt., Commodity Research Bureau, *Metals Week*, Kansas City mkt., Memphis mkt.

LEADING INDICATORS

	Latest week	Week ago	% Change year ago
STOCK PRICES (7/27) S&P 500	355.51	365.52	5.2
CORPORATE BOND YIELD, Aaa (7/27)	9.26%	9.24%	3.9
INDUSTRIAL MATERIALS PRICES (7/27)	101.5	101.4	–1.4
BUSINESS FAILURES (7/20)	244	248	3.0
REAL ESTATE LOANS (7/18) billions	$376.6	$376.0r	11.2
MONEY SUPPLY, M2 (7/16) billions	$3,288.8	$3,285.4r	5.4
INITIAL CLAIMS, UNEMPLOYMENT (7/14) thous.	358	361	1.4

Sources: Standard & Poor's, Moody's, *Journal of Commerce* (index: 1980 = 100), Dun & Bradstreet (failures of large companies), Federal Reserve Board, Labor Dept. CIBCR seasonally adjusts data on business failures and real estate loans.

MONTHLY ECONOMIC INDICATORS

	Latest month	Month ago	% Change year ago
CONSTR. SPENDING (June) annual rate, billions	$447.5	$447.6	3.7
12 LEADING INDICATORS COMPOSITE (June) index	146.0	146.0r	1.4
PERSONAL INCOME (June) annual rate, billions	$4,639.5	$4,622.9r	6.1
NEW HOME SALES (June) annual rate, thous.	581	538	–10.1

Sources: Census Bureau, Commerce Dept.

MONETARY INDICATORS

	Latest week	Week ago	% Change year ago
MONEY SUPPLY, M1 (7/16)	$807.9	$810.5r	4.0
BANKS' BUSINESS LOANS (7/18)	321.7	321.9r	1.2
FREE RESERVES (7/25)	303	502r	–67.9
NONFINANCIAL COMMERCIAL PAPER (7/18)	146.8	146.9	16.9

Sources: Federal Reserve Board (in billions, except for free reserves, which are expressed for a two-week period in millions).

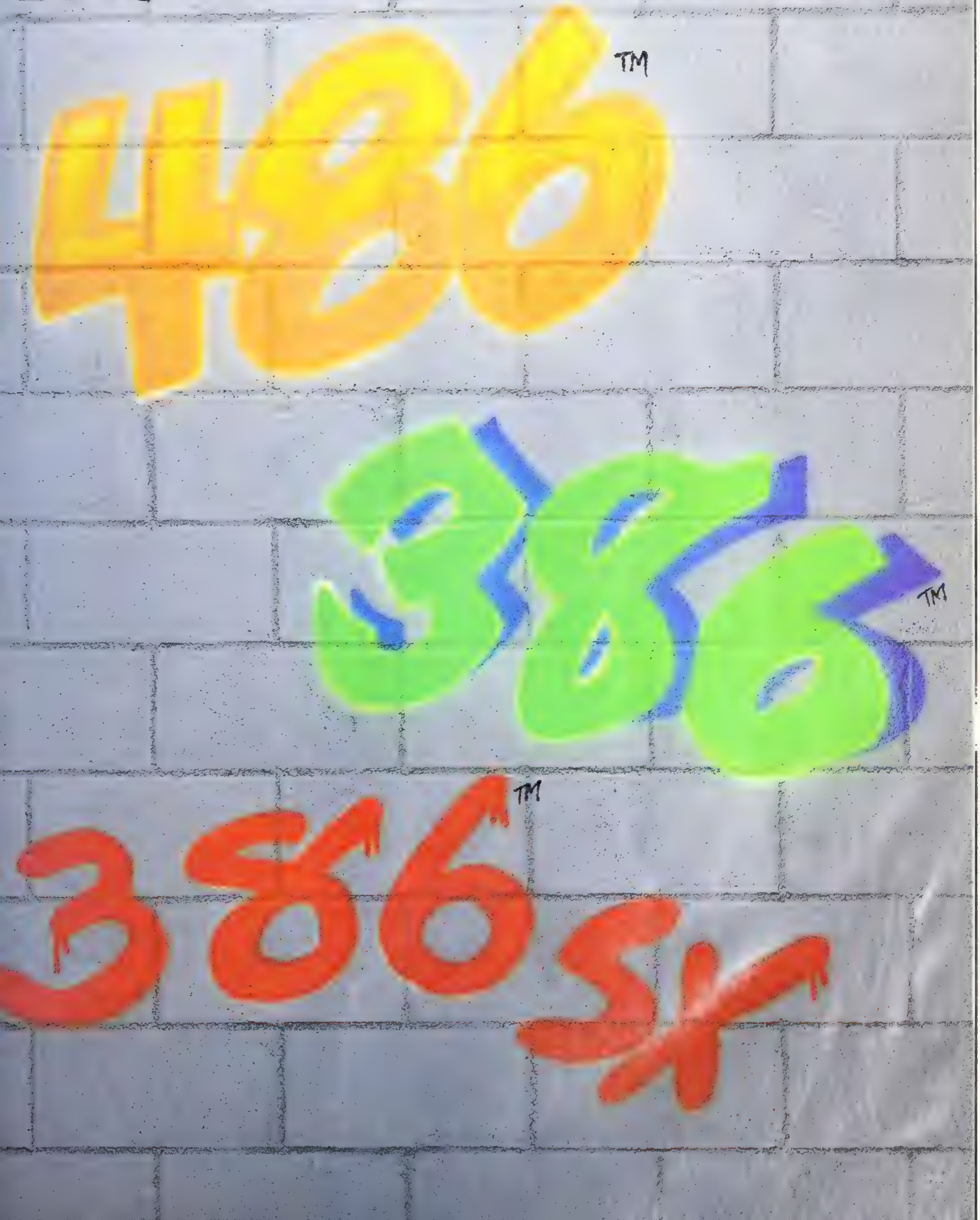
MONEY MARKET RATES

	Latest week	Week ago	Year ago
FEDERAL FUNDS (7/31)	8.05%	8.02%	8.95%
PRIME (8/1)	10.00	10.00	10.79
COMMERCIAL PAPER 3-MONTH (7/31)	7.78	7.89	8.37
CERTIFICATES OF DEPOSIT 3-MONTH (8/1)	7.88	7.98	8.35
EURODOLLAR 3-MONTH (7/25)	8.00	8.05	8.84

Sources: Federal Reserve Board, First Boston

# Raw data in the production indicators are seasonally adjusted in computing the BW index (chart); other components (estimated and not listed) include machinery and defense equipment.
1 = Western Wood Products Assn. 2 = Southern Forest Products Assn. 3 = Free market value NA = Not available r = revised NM = Not meaningful

The numbers outside.



BusinessWeek

EDITOR-IN-CHIEF: Stephen B. Shepard
MANAGING EDITOR: John A. Dierdorff
EDITOR: William Wolman
ASSISTANT MANAGING EDITORS: John Maughan, Mark Morrison, Anthony J. Parisi
ART DIRECTOR: Malcolm Frouman
SENIOR EDITORS: Bob Arnold, Nancy Cardwell, Robert J. Dowling, Stuart Jackson, Richard F. Janssen, Geoff Lewis, Sally Powell, Ciro Scotti, Lee Walczak (Washington), G. David Wallace, Seymour Zucker
EDITORIAL PAGE EDITOR: John E. Pluenneke
CHIEF OF CORRESPONDENTS: Keith G. Felcyn
INTERNATIONAL EDITION EDITOR: Frank J. Comes
SENIOR WRITERS: Anthony Bianco, John A. Byrne, Judith H. Dobrzynski, John Hoerr, Gene G. Marcial, Bruce Nussbaum, John Pearson, Otis Port, Chris Welles, Brenton Welling
ASSOCIATE EDITORS: Duane E. Anderson, Robert Barker, Elizabeth Ehrlich, Marc Frons, William J. Holstein, Jeffrey M. Laderman, William D. Marbach, Mark N. Vamos
DIRECTOR EDITORIAL SYSTEMS & OPERATIONS: Thomas J. Reed
SENIOR SYSTEMS MANAGER: Richard I. Ulman
PICTURE EDITOR: Lawrence Lippmann
ECONOMICS: James C. Cooper (Business Outlook editor), Kathleen Madigan (Assoc.), Karen Pennar (Economics editor), Christopher Farrell (Assoc.), Michael J. Mandel (Assoc.), Gene Koretz (Economic Trends editor), William Glasgall (International)
DEPARTMENT EDITORS: Books: Denise Demong **Corporate Finance:** Larry Light, David Zigas (Assoc.) **Industries:** Thane Peterson **Information Management:** Jeffrey Rothfeder **Information Processing:** John W. Verity **International Edition:** Elizabeth Weiner **International News:** Peter Galuszka **Investment Banking:** Jon Friedman **Labor:** Aaron Bernstein **Legal Affairs:** Michele B. Galen **Marketing:** Christopher Power, Amy Dunkin (Assoc.) **Markets & Investments:** Gary Weiss **Media:** Susan Duffy **Money & Banking:** John Meehan **News:** Harris Collingwood **People:** Peter Finch **Personal Business:** Donald H. Dunn **Science:** Emily T. Smith **Scoreboards:** Robert Mims **Telecommunications:** Peter Coy **Transportation:** Michael Oneal
STAFF EDITORS: Brian Bremner, Deidre A. Depke, Naomi Freundlich, Bruce Hager, Fred F. Jespersen, Mark Landler, Leah J. Nathans, Stanley Reed, Monica Roman, Andrea Rothman, Troy Segal, Suzanne Woolley
ASSISTANT EDITOR: Laura Zinn
COPY EDITORS: Harry Maurer (Deputy chief), Michael Mercuno, Joan Warner (Asst. chiefs), Marc Miller, Jack Robbins, Jim Taibi (Sr. Copy Editors), Tim Belknap, Pam Black, Prudence Crowther, Carl Desens, Hardy Green, Aleta Kaufman, Cynthia McClean, David Pengilly, Malka Percal, Barbara Tierney, Dalia Kandiyoti, Kim Jacobs, Aida Rosario, Rebecca Stead (Researchers)
PRODUCTION COPY EDITORS: Donald Halsband (Chief), Hallberg Hallmundsson, Robert S. Norman, Celine Keating, Karen Leiner, Stephan M. Romanoff
ART: Laura Baer, Steven Taylor (Deputy directors), Jeri Hansen, Eric Rosenberg (Assoc. directors), Pamela Harris, Craig Socia (Asst. directors) **Graphics:** Arthur Eves (Director), Joan Danaher (Deputy director), Rob Doyle (Sr. Illustrator), Laurel Daunis, Ray Vella (Illustrators) **Production:** Mary Lee Schneider (Mgr.), Stephen J. Romeo (Asst. mgr.)
PHOTOS: Sue Bloom (Deputy Picture editor), Scott Mlyn (Assoc. Picture editor), Todd James, Anne Murray, Ronnie Weil (Asst. editors) Kathleen Daly (Researcher) Bettina Baudoin (Researcher - Paris) Joan Clark (Traffic), Lawrence Crowe (Libranan)
EDITORIAL OPERATIONS: Albert E. Baker, Richard Balestrino, A. Peter Clem, Yvonne Rodriguez, Claire Worley (Production managers) Thomas R. Dowd, Sharon L. Eng, Fidel Lee, José L. Martin, Jane M. Perkinson, Craig Sturgis, Karen Turok, Ilse V. Walton, Nicholas White (Makeup editors), Felix Lindicy (Makeup asst.) Donald C. Pearson (Traffic manager), Dale I. Arnold, Edgardo Torres (Production assts.)
CORRESPONDENTS: Jerome Zukosky (Deputy chief) **Atlanta:** Chuck Hawkins (Mgr.), Walecia Konrad **Boston:** Keith H. Hammonds (Mgr.), Laura Jereski, Gary McWilliams **Chicago:** James E. Ellis (Mgr.), David Greising, Kevin Kelly, Julia Flynn Siler, Lois Therrien **Cleveland:** Zachary Schiller (Mgr.), Maria Mallory, Stephen Phillips **Connecticut:** Todd Vogel (Mgr.), Lisa Driscoll **Dallas:** Wendy Zellner (Mgr.), Jim Barlimo **Denver:** Sandra D. Atchison (Mgr.), William C. Symonds (Sr. Correspondent) **Detroit:** James B. Treece (Mgr.), David Woodruff **Houston:** Mark Ivey (Mgr.) **Los Angeles:** Ronald Grover (Mgr.), Larry Armstrong (Sr. Correspondent), Kathleen Kerwin, Eric Schine **Miami:** Gail DeGeorge (Mgr.), Antonio N. Fins **Minneapolis-St. Paul:** Russell Mitchell (Mgr.) **Philadelphia:** Joseph Weber (Mgr.) **Pittsburgh:** Gregory L. Miles (Mgr.), Michael Schroeder **San Francisco:** [illegible] O'C. Hamilton (Mgr.), Richard Brandt, Barbara Buell, Robert Hof, Ma[illegible] Shao **Seattle:** Dori Jones Yang (Mgr.) **Washington:** Stephen H. Wildstrom (Sr. News Editor), Stan Crock (News Editor), Amy Borrus, Vicky [illegible]ahan, John Carey, Paula Dwyer, Dean Foust, Susan Garland, Howard Gleckman, Dave Griffiths, Douglas A. Harbrecht, Bill Javetski, Mark Lewyn, Paul Magnusson, Mike McNamee, Seth Payne, Tim Smart, Catherine Yang **Bonn:** John Templeman (Mgr.), Gail Schares **Brussels:** Jonathan Kapstein (Mgr.) **Hong Kong:** Dinah Lee (Mgr.), Pete Engardio **London:** Richard A. M[illegible]her (Mgr.), Mark Maremont **Mexico City:** Stephen Baker (Mgr.) **Moscow:** Rose Brady (Mgr.) **Paris:** Stewart To[illegible] (Mgr.), Jonathan B. Levine, Blanca Riemer **Rome:** [illegible] **Sao Paulo:** Jeffrey By[illegible] **Tokyo:** Robert [illegible]
EDITORIAL SERV[illegible]S: Broadcasting: Ray Hoffman **Business Manager:** Barbara [illegible] **Information Services:** Jude Hayes [illegible] Gordon Fred [illegible] **[illegible]ions:** Christine Sumnicht [illegible] Josephine Coppola **Reprint Permission:** Vivian J. K. Betton **Systems:** [illegible]
PUBLISHER: John W. Patten
SR. VP, DIRECTOR OF MARKETING: John J. Bedell
SR. VP, OPERATIONS: Gary B. Hopkins
VPs, INTERNATIONAL: Gerd Hinske, Earl S. Moore, Jr.
VP, PLANNING & DEVELOPMENT: Barbara Munder
VP, CIRCU[illegible]TION: [illegible]
VPs, SALES: Constance E. Bennett (San Francisco), John R. Campbell (Stamford), Charles W. Hennessy (Philadelphia), Irwin Kornfeld (New York), Thomas O. McDonough (Chicago)
DIRECTOR, ADVERTISING BUSINESS: Linda F. Carvalho
DIRECTOR, PRODUCTION: Mario J. Tallulo

Readers Report

. . . AND CAREER SATISFACTION FOR ALL

Your article "Making high school diplomas tickets to the workplace" (Social Issues, July 9) on the "career illiterate" makes several important points. The gap between our schools and our industries is wide indeed.

There are, however, some major efforts being made to correct the situation. Here in North Carolina, a number of innovative school districts have adopted the Tech-Prep Program—a program of study designed to prepare students not for university admission but for entrance into the career-related technical programs of the state's community colleges.

In our community, local businesses have committed to provide community college scholarships for students who successfully complete the program.

A university education is not for everyone. Good jobs and challenging careers, however, are for everyone who is properly trained and prepared.

John R. Dempsey
President
Sandhills Community College
Pinehurst, N. C.

DON'T DILUTE THE GAS TAX'S BENEFITS

Regarding your editorial "The right way to raise taxes" (July 9): An increase in the federal gas tax, with the proceeds siphoned off for deficit reduction, would create havoc for the nation's road- and bridge-rehabilitation programs. It would erode the current flow of dollars for transportation repair and cripple the states' ability to adjust their own gas-tax levels.

For over 30 years, this country has had a pay-as-you-go road financing system, where motor-fuel taxes have gone into the Federal Highway Trust Fund to build and maintain our roads and bridges.

Adding a 50¢ tax to gasoline may seem an easy way to reduce the federal deficit, but a lot more is at stake than raising revenue. Our future mobility and economic well-being ride on this country's road and bridge network. Let's n[illegible] shortchange it by destroying the use[illegible] fee principle behind gasoline taxes.

William M. Wilkins, Executive Direct[illegible]
The Road Information Progra[illegible]
Washingt[illegible]

VENDING VS. LENDING IN THE 1990s

Those of us who worked for the Ma[illegible] shall Plan in the 1940s and 1950s [illegible] Europe must surely be thinking, as [illegible] am, that "what goes around, com[illegible] around." Many of us learned early [illegible] that you cannot simply give away mon[illegible] to economically marginal countries. [illegible] be effective, economic aid must be a[illegible] chored in some type of long-term stra[illegible] gy. "Aid without trade" is ineffectiv[illegible] inequitable, and doomed to failure.

Here we go again, 50 years later, [illegible] tempting to rekindle an economic a[illegible] strategy with Latin American, Africa[illegible] and Eastern bloc countries without a[illegible] expectation or prerequisite that the[illegible] countries extend to the U. S. a quid p[illegible] quo for technologies, merchandise, a[illegible] services that can easily be offered [illegible] exchange for economic support.

As a first step to an intelligent a[illegible] reciprocal trade relationship, guideli[illegible] and guarantees for currency convertib[illegible] ity and exchange must be developed.

The shrewdest 1990s slogan that [illegible] can apply to guide our current thinki[illegible] for effective trade relationships [illegible] "Let's be vendors, not lenders."

If we apply this simplistic but realis[illegible] philosophy, countries we trade with w[illegible] not anticipate getting something f[illegible] nothing, on the one hand, and on t[illegible] other, U. S. manufacturers and supplie[illegible] will be doing what they've traditiona[illegible] done best in marketing to foreign cou[illegible] tries: selling goods and services in [illegible] change for goods and services.

John D. Ri[illegible]
Wilton, Co[illegible]

FOR SAFER SKIES, MORE AIRWAVE FREQUENCIES

Your article "Airwave wars" (Cov[illegible] Story, July 23) accurately portray[illegible] many of the issues of allocation and u[illegible] of the radio frequency spectrum but l[illegible]

BUSINESS WEEK
AUGUST 13, 1990 ***3173
ISSN 0007-7135

[illegible] McGraw Hill [illegible] 22 Avenue of the Americas, New York, N.Y. 10020 [illegible] $12.00; Dollars to Texas $12.00. International Tel [illegible] McGraw Hill, New York. TWX 710-581-[illegible] [illegible] per year, 2 years $[illegible], 3 years $[illegible] [illegible] Write for rates in other countries [illegible] 1-800-[illegible]

European Circulation Center, McGraw-Hill House, Maidenhead, [illegible] England. Telephone 0628-23431. Telex 848640.
Postmaster: Please send address changes to BUSINESS WEEK [illegible] Box 430, Hightstown, N.J. 08520. Second-class postage paid at [illegible] York, N.Y., and at additional mailing offices. Postage paid at Mont[illegible] P.Q. Registration Number 9010. Copyright © 1990 by McGraw-Hill [illegible] All rights reserved. Title registered in U.S. Patent Office.

Officers of McGraw-Hill, Inc.: Joseph L. Dionne, Chairman, Pres[illegible] and Chief Executive Officer; Robert N. Landes, Executive Vice P[illegible] dent, General Counsel, and Secretary; Harold W. McGraw, III, Ex[illegible] tive Vice President; Frank D. Penglase, Senior Vice President, [illegible] sury Operations.

PERMISSION: Where required, permission is granted by the copyright owner for those registered with the Copyright Clear[illegible] Center (CCC), 27 Congress St., Salem, Mass. 01970, to photocopy any article herein for the flat fee of $1.50 per copy of each article. Send pay[illegible] [illegible] copying for other than personal or internal reference use without express permission of McGraw-Hill is prohibited. Address requ[illegible] for customized bulk reprints to Business Week Reprints, P.O. Box 457, Hightstown, N.J. 08520, or call 609 426-5494. ISSN 0007-7135/90/[illegible]

The computer inside.

Since buying a computer today is such a
mbers game, here's a simple rule of thumb.
ok for 386™SX, 386™ or 486™ on the outside to be
rtain that you have Intel technology on the
side. From the company that invented the
croprocessor. The company that has shipped
er 10 million 32-bit processors. The same
mpany that's investing over $1 billion this year
to make sure the computer inside your computer
has the technology, power and compatibility to
take you into the future.

intel®
The Computer Inside.™

0 Intel Corporation.

The Computer Inside, 386 & 486 are trademarks of Intel Corporation.

THE UNIVERSAL LA

DAEWOO SECURITIES CO., LTD.

UAGE OF FINANCE.

When it comes to capital markets, Daewoo is a truly international player, as conversant with yen and pounds as with dollars and, of course, the Korean won. With an impressive record of success in the securities markets, such as in brokerage, dealing, underwriting, mergers & acquisitions and investment counseling, Daewoo Securities has rapidly emerged as a powerful financial force. For more information on how our global financial services can help you prosper, call Daewoo.

Daewoo Securities Co., Ltd. (212) 466-0870

DAEWOO

THE UNIVERSAL LANGUAGE OF QUALITY.

out one very important issue—aeronautical users. As aircraft are completely mobile and incapable of using wire or fiber-optic connections, they are totally dependent on radio frequencies for navigation, air-traffic control, and operational control. In short, for the very safety of flight.

The spectrum assigned for aeronautical use of satellite communications, in the L-band, is in jeopardy. After painstaking efforts to produce national and international standards for satellite communications, and planning greatly improved flight operations and service, the Federal Communications Commission has taken a position for the U. S. before the International Telecommunication Union that leaves only 7% of the frequencies assigned for aeronautical use available for that exclusive purpose. The rest are to be shared by land-mobile users without global system standards.

This would leave aviation to cope with interference and a multitude of technical standards.

A recent study, commissioned by the International Air Transport Association (IATA), concluded that even with very conservative estimates of early use and of future growth, the original L-band allocation is not adequate. Certainly, all commercial uses of the frequency spectrum are legitimate and deserve consideration. But a commercial free-for-all is clearly not in the national interest, nor is it good for the safe and efficient use of that other precious resource, navigable airspace.

James M. Guyette
Executive Vice-President
Operations
United Airlines Inc.
Chicago

CPA, TO THINE OWN SELF BE TRUE

The statement by Philip Chenok, president of the American Institute of Certified Public Accountants, that "when businesses fail, the folk who are hurt tend to look around for someone to blame" ("Pressure on professionals," Top of the News, July 23), reflects the extent to which the AICPA has abrogated its role as a professional organization and become instead a captive spokesman for the Big Six CPA firms.

The common thread in most CPA malpractice cases is the abandonment by the individuals and firms involved of their independence—the hallmark of the profession. Mr. Chenok and his colleagues at the AICPA should acknowledge this problem and initiate appropriate remedial action, including timely and effective discipline of the individuals and firms involved; greater cooperation with the Securities & Exchange Commission; setting up a truly independent auditing standards board, similar to the FASB; and advocating the breaking up of the large national firms into more manageable and responsible local units.

Nicholas L. Feakins
Feakins & Feakins
Certified Public Accountants
San Mateo, Calif.

CORRECTIONS & CLARIFICATIONS

In "KKR is doing just fine—without LBOs" (Finance, July 30), Safeway Stores Inc. revenues for 1989 should have been stated as $14.324 billion. Owens-Illinois Inc. should have been described as a manufacturer of glass containers and other packaging products.

The July 30 Inside Wall Street column should have named Roche Holding Ltd. as the company that has agreed to acquire a 60% interest in Genentech Inc.

In "A Shot At Shooting Down Punitive Damages" (Legal Affairs, July 16), BUSINESS WEEK incorrectly stated Pat Haslip's salary as an assistant city clerk in Roosevelt City, Ala. The correct amount: $580 a month.

HOUSTON NEEDS THE BACKING OF ITS BANKS

Your story "First City's deals are falling like dominoes" (Top of the News, July 9) comes as no surprise. Local banks that claim to "carry the Texas flag" are, in fact, being the most conservative and, at times, hindering the recovery of Houston.

First City needs to look again at Houston and start making, rather than rejecting, perfectly legitimate loans.

Marwan M. Atalla
Houston

'STREAMLINE' BANKING? NOT ON YOUR LIFE

One wonders what real-life observations prompted your editors' proposals to streamline banking by consolidation into a limited number of national banks ("A rare chance to streamline banking," Editorials, July 16).

It surely could not have been the aggregation of community banks in Texas into huge statewide banks that subsequently failed because of excesses in the real estate market. Nor our present national banks, which dissipated their capital on loans to LDCs. Nor the parallel history of oligopolies in American industry, whose bureaucratic inefficiency ar inability to adapt currently undermin our economy.

As suggested, such national banl would divert capital from depressed a eas to boom areas, exaggerating tl booms and recessions of each. Stror community banks are vital to a city ability to recover from a recession bas on factors affecting its region.

Preservation of economic diversity h been and will be the cornerstone of ec nomic efficiency and individual libert and our decentralized banking system a vital ingredient.

David A. Hartm
CI
Hartland Ba
Austin, Te

NICE TRY, BUT THE MARKET WON'T BEAR IT

Oxymoron of the week ("The wa keep closing in on New York dev opers," Finance, July 2): "Broker Sa Stolzenberg is trying to sell an empt 66-unit building. Stolzenberg says t value of the property is $14.5 million, b the only offer he has is $6 million."

Please tell Mr. Stolzenberg that I ha some gold to sell him, whose value I s is $485/oz., but the most anyone h offered me is $365/oz.

Ian Ke
San Francis

CONVERTIBLE ISN'T WHAT A BOND SHOULD BE

You have provided a table that lis the top bond funds ("It's steady s she goes in the bond market," Bon Midyear Investment Outlook, June 2 Not surprisingly, 5 of the top 10 fun that you listed are convertible bo funds. What is surprising is that y would include these in your bond categ ry, considering the relative risk associ ed with them.

Convertible bonds are a hybrid pr uct with many stock characteristics. convertible bond funds include outrig stocks. Most of these funds did not fa too well in 1987.

Maybe you are being somewhat m leading, since your readership probal thinks of bonds as fixed-income produ with a much greater degree of safet

Michael G. Ra
MGR Financial Servic
Mount Kisco, N.

Letters to the Editor should be sent to Reac Report, Business Week, 1221 Avenue of the Am cas, New York, N. Y. 10020. Fax: (212) 512-44 Telex: 12-7960, Intl. 4998204. All letters must clude an address and daytime and evening t phone numbers. We reserve the right to edit let for clarity and space.

Taking imaginations for a ride

It's the Loch Ness Monster roller coaster . . . a wild sports car chase through the streets of Paris . . . an intergalactic Starfighter. The SR2 simulator is all those things and much more, thanks to a unique motion-control system using advanced electrohydraulic components from Parker.

Go for a fast ride standing in one place

Manufactured by Doron Precision Systems, Inc., the SR2 simulator is a stationary unit capable of creating the sensation of virtually any ground, water, or air/space vehicle. Since 1978, millions of people have enjoyed the various thrilling SR2's experiences in over 15 countries throughout the world.

As a star in the entertainment field, the SR2 offers a spectacular array of rides that can be changed as needed to offer new thrills to repeat customers. And central to the magical motion of the SR2 is the down-to-earth motion-control expertise of Parker.

Parker systems help make the experience real

By working closely with Doron at the initial design stages, Parker was able to develop and manufacture hydraulic components and systems to allow the SR2 a full and exciting range of motion. In addition, Parker supplied the hoses, connectors, filters, cylinders, and many other related products to assure the SR2 of safe, reliable, and economical operation on a demanding daily basis.

Of course, Parker was a logical choice for this important task since our products are already in use on the highly sophisticated flight simulators used to train military and airline pilots.

Dividend performance passes the others

As a $2.38 billion worldwide enterprise, Parker is the largest company in the motion-control industry, with impressive growth potential.

Parker has over 800 product lines in hydraulic, pneumatic, and electromechanical applications. In motion control, no single competitor presents a product line as broad as Parker's.

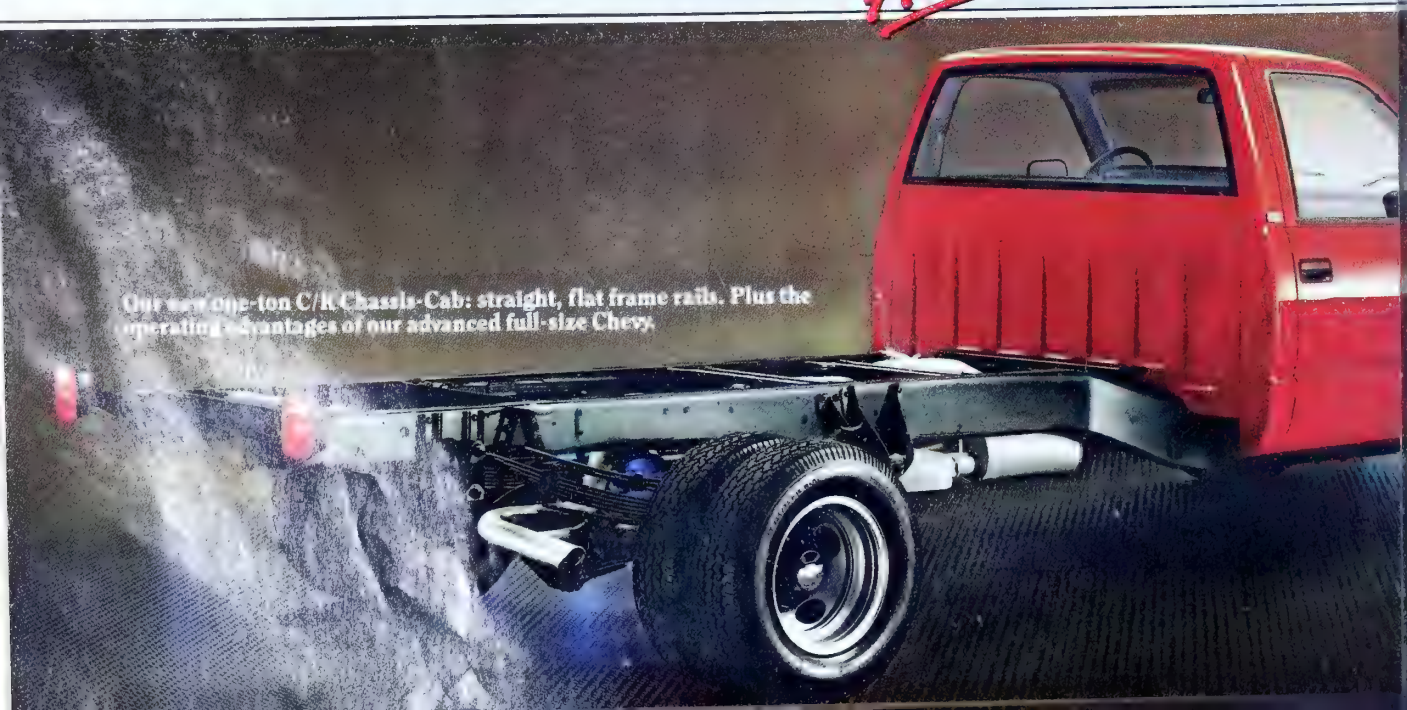
Our shareholders have benefited from this diversity with 34 consecutive fiscal years of dividend increases and 161 consecutive quarterly dividends.

For more information, write:
Parker Hannifin Corporation
Dept. BW-11
17325 Euclid Avenue
Cleveland
44112-1290
Ohio

(PH-NYSE)

A partnership in vital technologies. Parker

THE *Heartbeat* OF AMERICA



Our new one-ton C/K Chassis-Cab: straight, flat frame rails. Plus the operating advantages of our advanced full-size Chevy.

S WINNING.™ TODAY'S FLEET COMPANY IS CHEVROLET

Do business with Chevrolet Fleet Sales and you work with the biggest fleet sales and service support team in the business.

We have over twice the trained fleet manpower in the field than Ford. We have an 800-number hot line to call for help. And, unlike Ford, we have a service organization just for fleet. So you deal with people who are 100% devoted to your needs. Rather than 50/50.

Call Chevrolet Fleet Sales, 1-800-248-2897. Cars or trucks, sales or service, nobody offers you more than we do.

Chevrolet and the Chevrolet emblem are registered trademarks and Chevy is a trademark of the GM Corp. © 1989 GM Corp. All Rights Reserved. Let's get it together... buckle up.

THE SHADOW IN THE SUN: A KOREAN YEAR OF LOVE AND SORROW
By Michael Shapiro
Atlantic Monthly Press • 240pp • $19.95

DISPATCHES FROM KOREA'S RESTLESS HEART

OLD LAND, NEW FACE: A BILLBOARD DOMINATES THE LANDSCAPE IN A KOREAN RURAL DISTRICT

American perceptions of Korea have come a long way since the days when the prevailing image of the country came from TV's *M*A*S*H*. In the past decade, South Korea has become an industrial giant and has begun to play a more important role in world affairs. But while we now have a sense of a more varied nation, a dearth of literature has kept our understanding of the U. S.'s sixth-largest trading partner inexcusably superficial.

Until now. In *The Shadow in the Sun: A Korean Year of Love and Sorrow*, Michael Shapiro shows us a Korea beyond Hyundai cars and those shots of riot police aired by U. S. networks on slow news days. Through a series of intimate vignettes, Shapiro introduces us to Koreans from all walks of life—corporate chairmen, professional wrestlers, dissidents, laborers, and bar hostesses—with a thoroughness and sophistication that make this a pioneering and insightful introduction to the changes shaking Korean society.

Free-lance writer Shapiro, also the author of *Japan: In the Land of the Brokenhearted*, conducted all his interviews in 1987 and 1988. His tales are less a recollection of the events of that tumultuous period—when Koreans toppled a dictator, elected a President, and hosted the Olympic Games—than a succession of personal dramas, "some of consequence to the nation; others mattering only to the protagonists."

Some of those we meet have been left behind in Korea's economic surge forward. We encounter, for example, poor urban families displaced by development, left only with vouchers not nearly sufficient to replace their homes. Shapiro often lets his subjects speak for themselves, which gives his book a poignancy greater than any sermonizing could. He shows us the diary of Sammi, one of 22 young women killed in a sweatshop fire in Anyang, outside Seoul, in March, 1988. In her despair at working six or seven days a week for $5.50 a day, she wrote: "The word death is always on my mind. I envy my friends. I envy my friends who sleep in peace."

We also meet Park Chong Ki, a janitor from Pusan whose son, Chong Chol, won Korea's ultimate academic laurel, admission to Seoul National University. The younger Park was drawn to politics in college and later was jailed. His captors tortured him to death, breaking his windpipe on a bathtub rim, and the government tried to cover up his murder.

Park's death shook his father's complacency and pushed him to activism as he tried to uncover the circumstances. The life of Park Chong Chol—his goin so far from humble beginnings only t be violently cut down—was seen b many Koreans as emblematic of the own triumphs and struggles in a natio that developed a world-class econom but retained a Third World governmen The resulting outrage so terrified th government that it put opposition lea ers Kim Dae Jung and Kim Young Sa under house arrest on the day of Park memorial service. His face appeared o protest posters, and his name was i voked at the rallies that eventual brought down General Chun Doo Hwa

Shapiro depicts Korea as driven b two complementary passions that Kor ans consider to be peculiarly theirs: *ha* (bitterness) and *jong* (devoted love). T Shapiro, the interplay of *han* and *jo* explains Korea's perplexing ability to b at once intensely productive and violen These passions, he writes, "could drive society and make it stand stock-sti could make it capable simultaneously love and hate, that spilled from one the next so quickly that I as a Wester er, seeking clarity, seeking one or th other, was lost between them."

Shapiro focuses primarily on *han*, th accumulated bitterness of people such Park Chong Ki. But in trying to confor everything he has uncovered to this ne ulous construct, he goes too far. Th reader is left with a sense that Korea subject to pathological mood swing that living there is "like being locked a room with a manic-depressive."

The behavior of many Koreans—st dents who immolate themselves in poli cal protests, for example—may see pathological, but Korean bitterness is just the dark side of the national psych It has tangible roots. Americans oft forget or fail to understand the frustr tion and insecurity of people whose f tures do not lie solely in their ov hands. The U. S. has shaped South K rea's national identity since the end World War II. We tend to expect Ko ans to be grateful for American ste ardship—and most are—but we give l tle thought to how it undermines t nation's sovereignty.

With his narrative gifts, Shapiro cou have done more to help American rea ers realize the extent to which the di sion of Korea—and subsequent U. S. p icy—have affected the lives he portra Despite that lapse, *The Shadow in t Sun* presents a clear view of the co plexities that form Korea's soul—a ta difficult for a Korean, and remarkab for an American.

BY PETER HO

Hong, whose parents emigrated from K rea, studied student activism there in 19 88 as a Watson Fellow.

"DO IT RIGHT."

Victor Simon
Senior Petroleum Engineer
Texaco

"We have a corporate responsibility to do business with a conscience. This includes ensuring that the issues we are all passionate about—the environment and the quality of life—are not overlooked."

Victor Simon is a Texaco Senior Petroleum Engineer. He is committed to making certain that Texaco's oil and gas operations in the Eastern U.S. are conducted in a manner consistent with environmental safeguards.

"This responsibility includes more than just being attentive to government regulations. In every step of our operations, from obtaining emission permits to ensuring on-site safety, simply meeting legislated standards isn't enough. We can and *do* exceed such standards when we believe it is the right thing to do. We have an obligation to our employees, our contractors, our customers and the people in the communities around us to act with their interest in mind, not just react."

Victor and his group have a commitment to corporate quality that goes beyond standard business practice. They have a driving desire to succeed without wasting time or energy; to make sure that when a job is done, it's done right the first time and every time.

"Basically, good business isn't just bottom-line efficiency. It's also safety on the job—whether you're drilling, producing or supplying. It's respect for the environment and for each other."

It's also people like Victor.

Star of the American Road

TEXACO – WE'VE GOT THE ENERGY.

Take your corporate rate on the road.

© 1990 AT&T

When your employees make business calls away from the office, your company may not be getting the savings it's entitled to. That's unless your employees use The *AT&T Calling Card* for Business.

Only AT&T ties calling card usage to every interstate volume discount plan we offer such as *AT&T PRO*℠ *WATS* and *MEGACOM*® *WATS*. So regardless of the size of your business, you always get the discounts you deserve. And your savings go where your employees go. From a phone booth in Muleshoe, Texas, to a hotel in the Big Apple.

But the advantages go beyond savings and easy access to the AT&T network. When you add our flexible ***EXECU-BILL***℠ *service*, you get a more efficient way of tracking and monitoring card expenses.

Billing is custom tailored to work the way your company works, whether you have one local office or many offices across the nation or around the world. You specify who receives statements and the level of detail each statement contains. We can even personalize your cards with your company's logo.

Your phone system just isn't complete without The *AT&T Calling Card* for Business and ***EXECU-BILL*** *service*. Find out how your company can get it free. Call your AT&T Account Executive or **1 800 222-0400, Ext. 2150.**

The *AT&T Calling Card* for Business.
Another AT&T advantage.

AT&T
The right choice.

THE SHORTEST ROUTE TO SHORING UP THE HIGHWAYS

BY ALAN S. BLINDER

Instead of building more interstates and airports, we should make better use of the infrastructure we've got: Repair it to last and charge more intelligently for its use. In the long run, the public will get improved services at a lower cost

America's pothole-pocked roads, teetering—and sometimes closed—bridges, and congested airports suggest a seriously deteriorating public infrastructure. Critics, including myself, claim that underinvestment has led to the inconvenience, delays, impaired health and safety, and even slowed growth in productivity. The suggested remedy? Build more roads, bridges, airports, water-treatment facilities, and so on. Unfortunately, however, the high price tag is a serious drawback in the current parlous state of government finances.

Now, a team of economists associated with the Brookings Institution has come up with a better idea. Instead of building more infrastructure, Kenneth Small, Clifford Winston, and Carol Evans argue, we should make better use of what we've got. Build our infrastructure better and charge more intelligently for its use, they claim, and the American public can get more and better services at lower cost.

Let us consider how to apply their two simple precepts—build it better and price it better—to two prominent examples: highways and airports.

■ **On the road.** Many of our highways are in disrepair—or resemble parking lots at peak hours. The obvious solution is to build more and wider roads. But, of course, greater highway capacity is expensive to build and will attract more drivers to damage and crowd the greater volume of roads.

To begin with, the Brookings economists argue, current practice builds roads that are too thin and that therefore begin crumbling too soon. Roadways constructed to last longer cost more initially but yield substantial savings in maintenance and repair costs later. The economists estimate that thicker pavement—for example, about two more inches on interstates—would eventually save taxpayers at least $4 for every $1 spent, including interest. Even if their calculations are off by a considerable margin, this simple change in policy has much to recommend it.

But what about pricing? Elementary economic principles suggest that road-use fees should depend on the costs that each vehicle imposes on society. In the case of highways, there are two principal costs: damage to the roadway and congestion. Trucks cause most of the wear and tear and, as we know, pay considerable road-use taxes. But the structure of these taxes ignores important engineering evidence that the damage a vehicle does depends not on its total weight but on its weight per axle. From this point of view, our current road-use charges are perverse, because the gasoline tax penalizes multiax trucks, which are generally larger a less fuel-efficient. In addition, there an excise tax on tires, and many t roads charge by the axle—the reverse what they should be doing.

If road-use fees were based on vehic weight per axle, the trucking indust would have an incentive to shift towa trucks with more axles, which would kinder and gentler to both our roads a our pocketbooks.

Cars require different treatment, b cause the main cost of letting a car u a roadway is not damage but the conge tion costs it imposes on other drive When John Doe decides whether to dri to work or take the train, he probab considers the delays he will face on t congested highway. But he ignores th his decision to drive in peak perio slows the progress of everyone else the road.

The economic remedy is simple in pr ciple: Drivers should pay more for usi roads during rush hours than duri slack periods. Electronic sensors ma this feasible. A less high-tech soluti would require permits to enter conge ed areas in peak periods. The gasoli tax works in this direction, for fuel ec omy declines in heavy traffic. But ecor mists who have studied the matter c clude that charges for road use in pe periods should be much higher than th now are. With appropriate pricing, tr fic would spread itself out more ever through the day, so the existing ro network would accommodate more ca traveling at higher speeds.

■ **In the air.** The same principles apply o our overcrowded airports, which seem be growing ever closer to gridlock. Mu has been made of the fact that Amer has not built a major new airport sin 1974, despite a huge increase in air tr fic. But far less attention has been giv to the irrational way we price and u the airport capacity we have.

Airport landing fees generally depe on weight. But the main cost of acco modating an additional plane at a bu airport is not the damage it does to t runway but the delays it imposes on o er aircraft. Thus, a small plane with t passengers costs society about as mu as a fully loaded jumbo jet. And a plane is more costly to handle at 6 p than at 1 p.m. Rational landing fe would therefore depend on time of d not on aircraft weight.

If we priced airport services this w most smaller planes would voluntar divert themselves from Kennedy O'Hare to smaller airports. The nat would suddenly find its existing airp capacity able to handle more traffic w fewer delays.

ALAN S. BLI THE GORDON S. RENTSCHLER MEMORIAL PROFESSOR NOMICS AT PRINCETON AND THE AUTH ARD HEADS, SOFT HEARTS

XEROX

One of the most significant documents we've ever processed.

Xerox is proud to have recently won the prestigious Malcolm Baldrige National Quality Award.

In pursuit of this award, we learned a lot about ourselves. And at the same time, developed a deeper understanding of quality that might better help businesses compete and prosper at home and abroad.

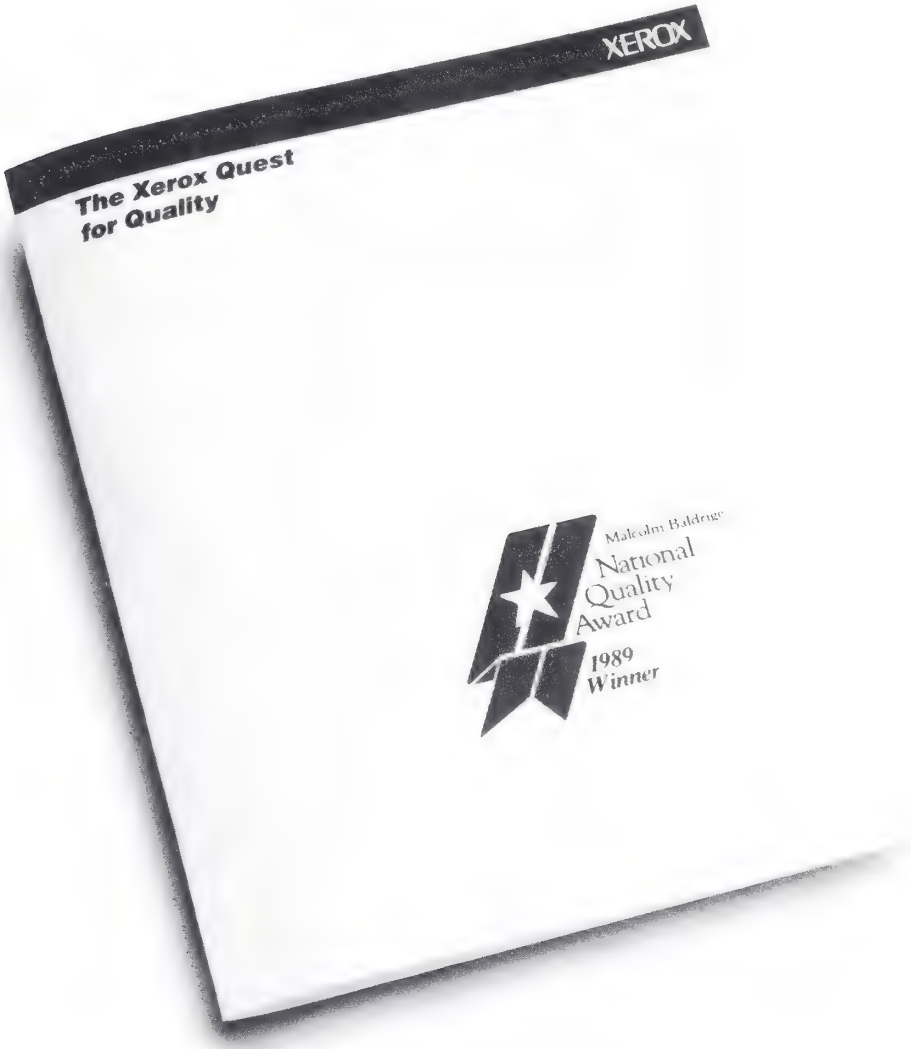
We believe such self-examination is vital if we are each to remain world leaders in our respective fields. So we thank those companies that previously shared their knowledge with us. And now we'd be pleased to share these insights with you.

If you're interested in obtaining the Xerox case study, please write us at Xerox Corporation, P.O. Box 24, Rochester, New York 14692. Or call 1-800-TEAM-XRX (832-6979) Ext. 327A.

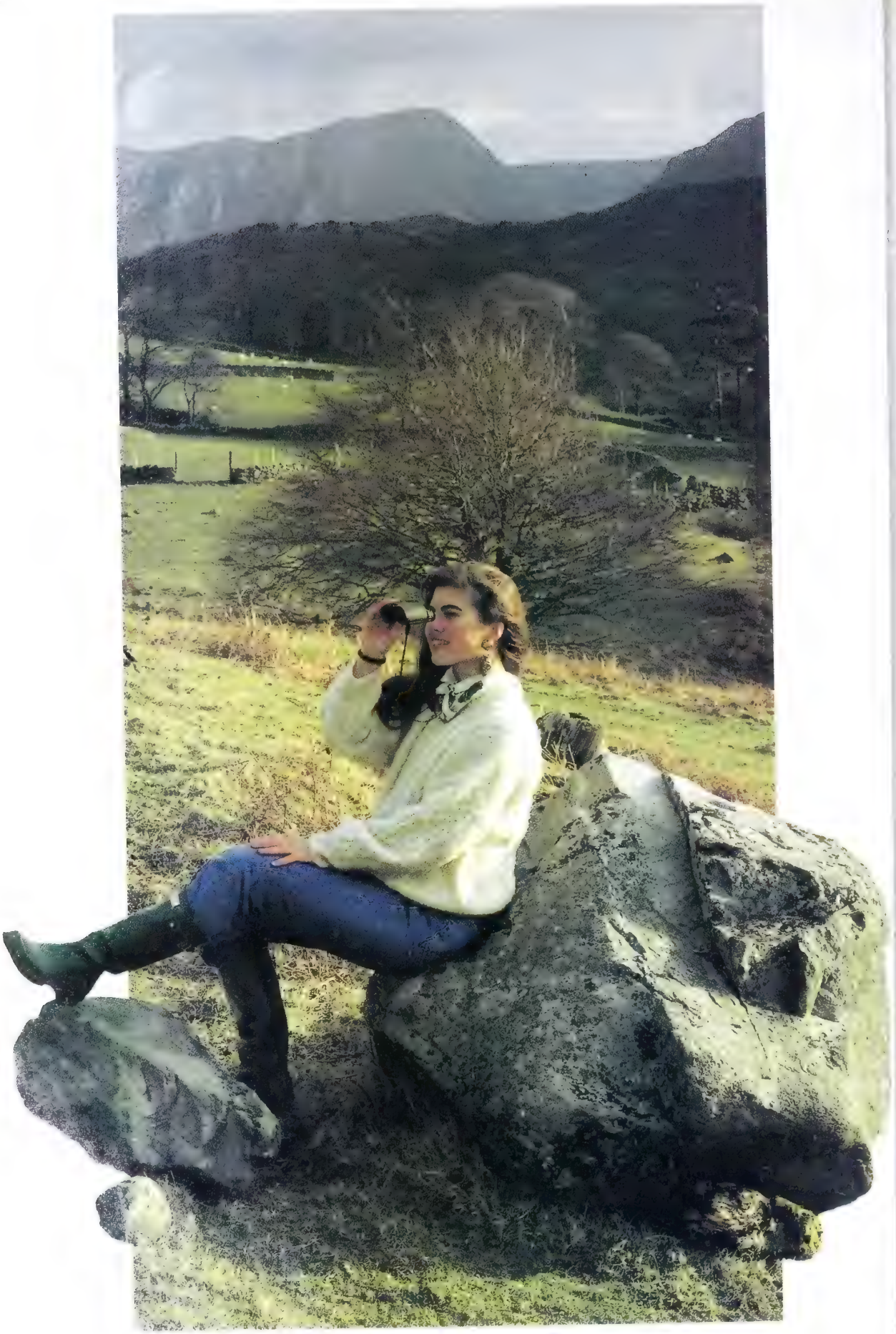
We'd be happy to make you a copy.

Malcolm Baldrige National Quality Award 1989 Winner

XEROX
The Document Company



©1990 XEROX CORPORATION. XEROX® is a trademark of XEROX CORPORATION.



Joan Appleton... An "outdoor girl" looking forward to more commuting comfort.

Every year, Joan Appleton spends three weeks underground.

As a sales attendant at a world famous West End store, Joan Appleton depends on the London Underground to get her to and from work. She has to be there at nine o'clock sharp each morning. Six days a week. It's almost an hour from her home in Epping, 25 miles northeast. In a year, that makes over three weeks of travel time.

"That's life in this part of the world," she shrugs. "I'm basically an outdoor girl. I love fresh air and open spaces. But if I have to spend that much time underground, I'd like it to be as comfortable as possible."

She and her fellow passengers also appreciate punctuality as much as comfort; trains that run on time and don't get stuck somewhere along the line. Which, as Joan will tell you, hasn't always been the case. Europe's largest urban population is served by the world's oldest metro system, and it sometimes shows.

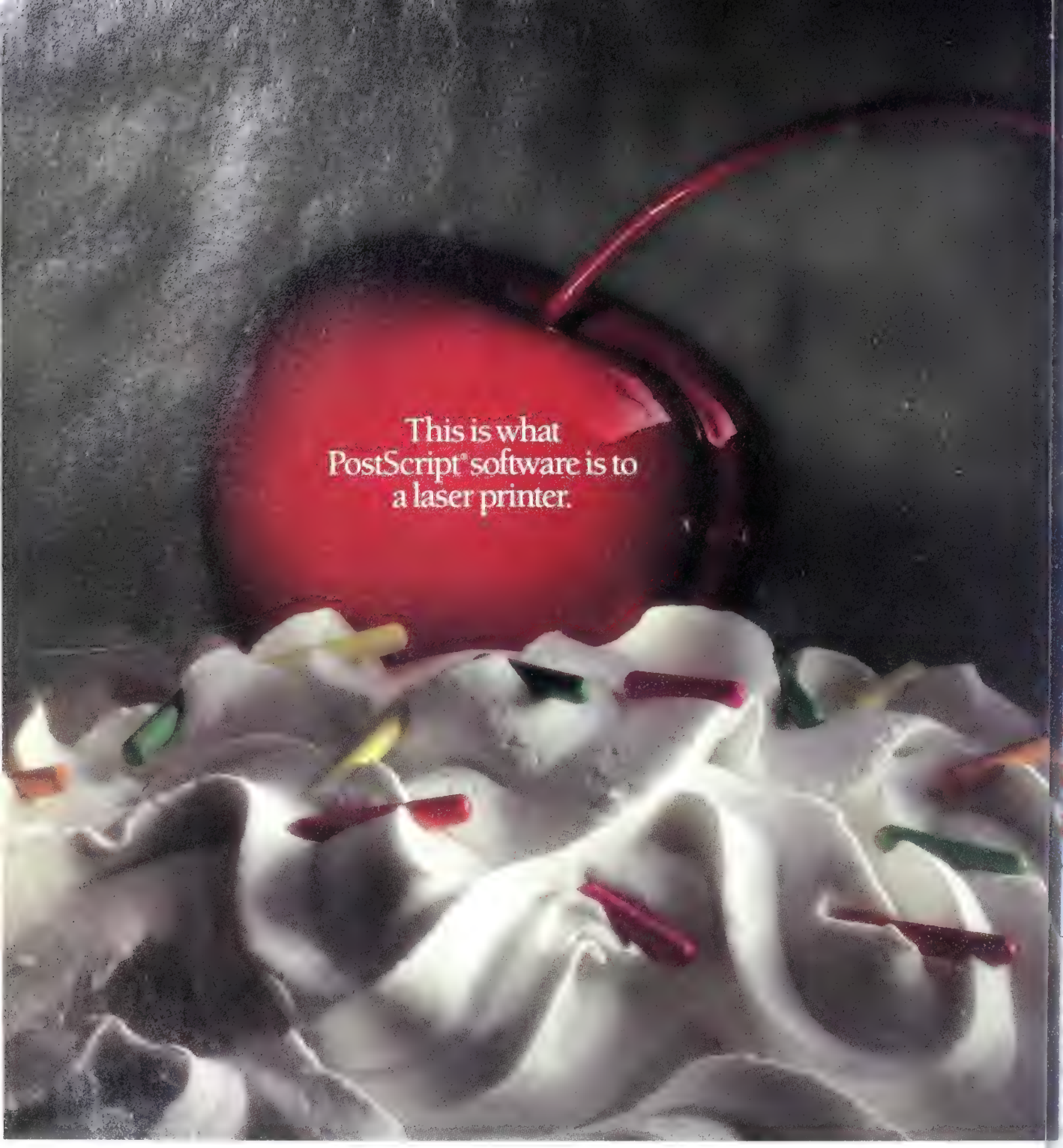
But that's changing. In a major renewal program, ABB traction technology is being applied in a project led by BREL Limited, ABB's UK associate, to supply 680 cars to London Underground's busy Central Line, enabling faster and smoother operation.

The result will be greater comfort, security and better service for London commuters. And Joan Appleton's underground quality of life will show a marked improvement.

ABB is a world leader in electrical engineering, committed to the development of new and better ways of generating power, getting it to where it is needed, and using it efficiently.

Asea Brown Boveri Inc.
Department 1-S
900 Long Ridge Road
Stamford, Connecticut 06904

ABB
ASEA BROWN BOVERI



It's the best part. Which means if you want the most out of your laser printer, make sure it has PostScript software from Adobe Systems inside it. Whether you depend on lines that rotate or lines that communicate, PostScript printers are a real treat. So call Adobe® at 1-800-952-6300, Dept. 177, for the complete list. Simply stated, they can't be topped.

POSTSCRIPT™
From Adobe Systems

The Best Part Of A Laser Printer.™

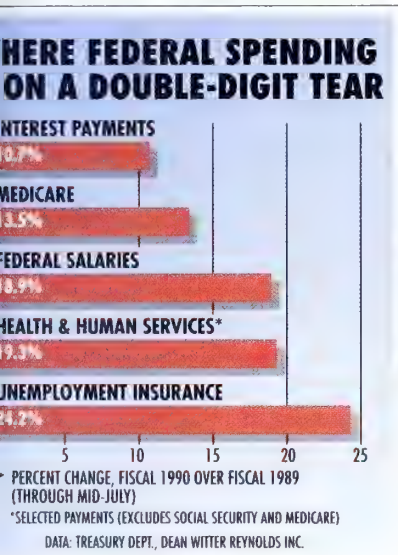
The Best Part Of A Laser Printer is a trademark of Adobe Systems Incorporated. Adobe, PostScript and the PostScript logo are trademarks of Adobe Systems Incorporated, registered in the U.S.A. and other countries. © 1987 Adobe Systems Incorporated. All rights reserved.

GENE KORETZ

IE DEFICIT PLAYS SCARY GAME OF ATCH-ME-IF-YOU-CAN

ven as Washington policymakers attempt to hammer out a deficit-cut package, it is becoming increasingly arent to both government officials the financial markets that huge and wing shortfalls loom ahead—over above the escalating cost of the ft bailout.

he most obvious factor darkening the get outlook is the inhibiting impact the economic slowdown on revenue wth. But economist William V. Sulli- Jr. of Dean Witter Reynolds Inc. es that "a number of key expenditure



egories are also accelerating dramatiy." He concludes that "stronger fed- spending is once again contributing widening budget gap." And part of surge in outlays seems directly relatto the economy's sluggish behavior.

he chart above tells the story. Five categories, which comprise nearly of government spending, have all ted double-digit increases thus far in al 1990 over their levels of a year lier. These trends alone have added billion to federal outlays with 2½ nths still left in the fiscal year.

Inderscoring a weakening labor mar- the largest percentage increase— re than 24%—shows up in federal unployment insurance payments. But biggest boosts in total dollar outlays being posted by expenditures for dicare and by interest on the national t. Each is running about $1 billion a nth higher than in fiscal 1989. Even if h a budget-reduction deal and a downward trend in interest rates materialize, says Sullivan, the interest component of the federal budget is likely to stay in double-digit territory because of the growing level of outstanding federal debt and the need to finance the savings-and-loan rescue.

In sum, budgeteers in the Administration and on Capitol Hill may be approaching a no-win situation. The double-digit spending rises outlined above far exceed the growth rates assumed by government forecasters for the year ahead. And, as Sullivan notes, "the fact that most of them involve either entitlements or are nondiscretionary suggests that they will be difficult to restrain."

Practitioners of the dismal science have long warned that the deficit would spin out of control if the economy slipped into a recession. In that sense, the recent slowdown in revenue growth and acceleration in several key spending categories could be an unpleasant taste of things to come.

WHICH WAY DID THE FED TWIST THE MONEY TAP?

Is the recent drop in the federal funds rate to 8% tangible evidence that the Federal Reserve has finally begun to loosen its grip on the money supply? Economist Nancy R. Lazar of C. J. Lawrence, Morgan Grenfell Inc. has her doubts. She notes that the Fed normally eases by injecting money into the banking system, causing bank reserves to rise and the federal funds rate—the rate at which banks lend surplus reserves to one another—to drop. But this time around, bank reserves declined significantly in late July following the funds rate drop, suggesting that the Fed actually drained reserves from the banking system.

Lazar concludes that "the funds rate was apparently headed down anyhow due to a weakening economy and the Fed had to tighten to keep it from dropping even more."

THE TRADE NUMBERS MAY NOT BE AS GRIM AS THEY LOOK

One of the many disconcerting notes in the government's latest report on the gross national product was its estimate that the trade deficit—dubbed "net exports" in the GNP report—rose at an $11 billion annual clip (in 1982 dollars) during the second quarter. The rise was doubly disappointing because a shrinking trade deficit was one of the chief engines of economic growth during the previous two quarters, and economists have been counting on continuing trade improvement to offset weakness elsewhere in the economy.

The good news is that the second-quarter trade estimate was based on just two months' data, and there's reason to believe that the shortfall will be lowered after June merchandise-trade figures are released in mid-August. Economist Edward E. Yardeni of Prudential-Bache Securities Inc. points out that customs duties collected by the U. S. government, which are a fairly reliable advance indicator of the value of imports, fell 8.4% in June, to $1.31 billion, on a seasonally adjusted basis. That's the lowest level in 14 months.

"The customs numbers suggest that June imports should be down sharply," says Yardeni. "At the same time, exports, which have climbed over 10% in the past year, should continue to rise." The upshot, he feels, is likely to be a big drop in the trade deficit, which should bolster the economy's growth rate when a revised estimate of second-quarter GNP is released in late August.

HERE'S ONE INDEX THAT SHOWS INFLATION CHILLING OUT

While June's unexpectedly large 0.5% increase in the consumer price index roiled the financial markets, July's producer price index (PPI) for finished goods should be a welcome contrast, says economist Donald Ratajczak of Georgia State University's Economic Forecasting Center.

Ratajczak's own survey of wholesale prices indicates that the PPI was up just 0.1% in July, showing virtually no increase since January. While gasoline prices and food prices rose moderately in July, the increases were in line with normal seasonal patterns and were thus translated into no change after seasonal adjustment, he reports. Meanwhile, the PPI for finished goods, less food and energy items, also rose just 0.1%.

Looking ahead, Ratajczak believes that food prices are likely to moderate substantially in the second half of 1990, while industrial prices should pick up some steam "with the aid of rising petroleum prices." The food and fuel trends are likely to offset each other, however, and Ratajczak predicts that the producer price index will be up about 3.6% through December, compared with 4.9% in 1989. ▣

MANY ARE CALLED. FEW ARE CHOSEN.

Many are called *to use* PCs in business. But a much smaller number—a chosen few—are entrusted *to buy* computer hardware and software for their companies. That's why the readers of BYTE Magazine have become such a dominant force in business today. They're part of an elite group of buyers found throughout an organization who have the computing knowledge to make difficult multivendor buying decisions. In fact, they are the new generation of information systems executives. Whether it's networks, operating systems, or applications software, BYTE readers have been relied upon to find the best computing solution for their businesses for the past 15 years.

More and more advertisers realize the power of the BYTE reader. That's why BYTE's ad pages have grown dramatically while those of other computer magazines have declined or remained flat. The next time you plan on advertising, make sure your sales message reaches the most important group of business computing buyers in the world.

BYTE . . . the Magazine of the Chosen Buyers.

For more information, call Steve Vito at (603) 924-9281

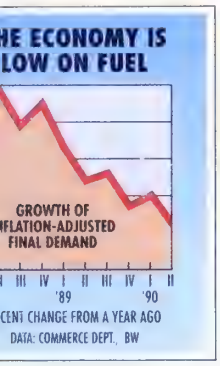
BYTE

JST 13, 1990

BY JAMES C. COOPER AND KATHLEEN MADIGAN

HE GNP NUMBERS SHOW HALF A RECESSION -BUT THERE'S HALF A YEAR TO GO

asten your seatbelts, it's going to be a bumpy second half. The Commerce Dept.'s report on second-quarter gross national product, which includes e startling revisions of past data, makes that clear. ows that half of the economy has been in a recession since the fourth quarter of last year, and the other may not be far behind.



The problem: No one is buying anything. Although real GNP managed to grow at a meek annual rate of 1.2% in the second quarter, the gain was all in inventories. Final demand—spending by consumers, businesses, government, and foreigners—fell 1.5%. The decline was broad, and the first since the last recession. Consumer spending fell 0.3%, and capital ding by businesses dropped 6.1%. Both declines e the second in the past three quarters.

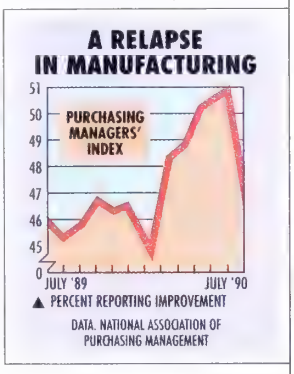
e government's annual revisions show that final and has been in a major slowdown for more than a (chart). In fact, consumer outlays for goods, capital ding, residential construction, and defense purses are all below their levels in last year's third ter. All totaled, that puts 49% of GNP in recession. d the index of leading indicators isn't encouraging. as unchanged in June and is no higher than it was in ary, 1989. All this suggests that economic growth in second half will be weak—at best (page 28).

VENTORY VELS AY NEED TTING

The other disturbing aspect of the GNP report was the surge in inventories. Stockpiles of nonfarm businesses grew by $27.3 billion last quarter, after a liqui- on of $8.2 billion in the first quarter. That $35.5 on swing more than offset the drop in final demand, much of the increase seems to have been unintended. big inventory swing last quarter was not unexpect- but the composition of it came as a surprise. De- 's combination of sales incentives and production caused the first-quarter drawdown, and the second- ter pickup in auto output was expected to add to growth. But cars accounted for less than half of last ter's inventory gain. The rest apparently piled up as sult of weak sales generally.

at buildup doesn't bode well for manufacturing. e of those stocks will have to be pared, and with and so weak, new orders won't be coming in. Indeed, the factory sector suffered a setback in July, according to the National Association of Purchasing Management.

The NAPM's index of business activity dropped to 47.4%, from 51.1% in June (chart). A reading below 50% means that manufacturing is in a recession. The index moved above that mark in the previous three months, but in July fell back to its lowest since January.



On a more positive note, the GNP numbers do enhance the inflation outlook—maybe not so much for the second half, but certainly for 1991. The Commerce Dept.'s revisions show that economic growth has averaged only 1.3% during the past five quarters, with no quarter doing better than 1.7%. The old data had put growth from the first quarter of 1989 at 2.1%. With the economy growing far below its long-run potential of about 2.5% for that much time, some easing of both wage and price pressures seems assured.

Labor costs are still rising too fast to expect much relief from inflation in the months immediately ahead, since wages and prices respond to changes in economic growth with a lag. But job markets are likely to show more slack in the second half. That will allow wage pressures to abate. Since economic growth has been so weak, the unemployment rate seems certain to rise in coming months—perhaps sharply. Sluggish demand and falling profits will continue to loosen the labor markets.

All this sets up the likelihood that the Federal Reserve Board will ease monetary policy sooner rather than later. Interest rates are likely to be a good bit lower by year-end. The trouble is, the economy's problems go far beyond interest rates. That's particularly true in the crucial consumer sector, which can make or break an expansion.

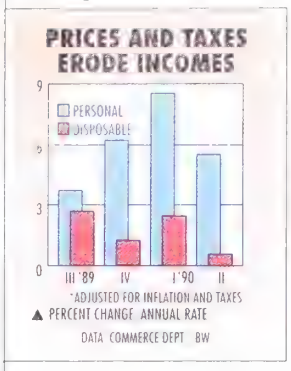
CONSUMERS PUT THE EXPANSION AT RISK

Consumers seem intent on breaking this one. Their spending spree of the 1980s has been a major reason for this expansion's long run. Shoppers ignored the manufacturing slump of 1986 and shrugged off the 1987 stock market crash. But now, consumer spending—two-thirds of GNP—is slipping. In the second quarter, real consumer outlays fell at an annual rate of 0.3%, and they are only 1.1% above their year-ago levels.

All of last quarter's drop was in goods purchases. Last quarter, sales of durable goods fell at an 8.7% annual clip, adjusted for inflation, with declines in cars, furni-

ture, and appliances. Nondurable goods were also hit, falling 4.4%—their third consecutive quarterly drop. Spending on goods is now 0.7% below last year's level. Annual growth in goods purchases rarely turns negative without signaling a recession.

Housing, another GNP component at the mercy of consumers, is also in a slump. In June, sales of new single-family home sales did rise 8%, to an annual rate of 581,000. But second-quarter sales remained below the first-quarter level. And housing's prospects remain dim.



The recent downtick in short-term interest rates won't help housing much. Mortgage rates are already half a percentage point below where they were last summer. Yet new-home sales for the second quarter were 13.7% below their year-ago levels, and are plumbing the record lows hit during the 1982 recession. Stingy banks, jitters over the expansion's future, demographic factors, and weak prices are retarding homebuilding. In June, overall construction spending was unchanged at an annual rate of $447.5 billion, but spending on residential construction fell 3%.

With goods demand slack and homebuying in the cellar, services continue to carry the consumer sector. Real service outlays rose at an impressive 5.5% annual rate last quarter. But even here there are signs of slowing. The gain in the second quarter reflected in large part a rebound in energy demand after the warm winter cut heating and electricity use in the first quarter.

The slowdown in the industrial sector is also hitting purchases of business services. They haven't grown at all over the past year. That's sharply slower than the 3.1% growth rate of the previous four quarters.

Consumers did end last quarter in a better shopping mood. In June, spending rose 1%, to an annual rate $3,643 billion. Some of that came from a 6.4% jump new-car sales as buyers tried to beat coming price hike Elsewhere, spending rose by 0.8%.

CONSUMERS AREN'T SAVING AS MUCH

Does the June increase signal a consum rebound in the second half? Not likel The month's buying pace wasn't match by a gain in income. Personal income ro by 0.4% in June, to an annual rate of $4,639.5 billion. B after taxes and price changes, real disposable incor was flat, just as it was in May.

In addition, the Commerce Dept. said that America earned less last year than first estimated. Commer revised personal income down by $43 billion in 1989, a lopped off another $14 billion in the first quarter. Re sions of the spending data were smaller, so as a resu the 1989 savings rate was revised down to 4.6%, fro 5.4%. In June, it stood at 4.9%. That leaves consume with less of a cushion for rough economic times.

Weaker job growth is a major reason for the slo down in income and spending. But the toll taken inflation and taxes has also held back consumer outlay Last quarter, personal income advanced at a healt 5.4% annual rate. But after adjusting for price chang and taxes, earnings were up a mere 0.5% (chart).

So it isn't surprising that consumer confidence is at lowest since the 1987 stock market crash. The Conf ence Board reported that its index of consumer con dence slipped 0.6%, to 101.8, in July. Most of the pes mism is centered in the Northeast, already mired recession. But with signs of a downturn spreading el where, consumer confidence is likely to fall further.

Weak consumer spending ensures that growth in fin demand will remain lackluster. And if there is no ince tive to build inventories, the GNP numbers in the seco half are likely to look even worse than they did in t first. So buckle up—and try to hang on tight.

THE WEEK AHEAD

PRODUCTIVITY

Monday, Aug. 6, 10 a.m.
Output per man-hour in the nonfarm business sector probably fell at an annual rate of about 1% in the second quarter, following a 2.5% decline in the first quarter. However, the downward revisions to the real gross national product, released on July 24, suggest that previous estimates of productivity will be recalculated lower when this report is issued. The expected drop in productivity, together with an increase in employment costs, suggests that nonfarm unit-labor costs increased at an annual rate of about 5% in the second quarter. In the first quarter, they grew at a 7.1% annual rate. In the manufacturing sector, output per hour worked likely rose at a 3% yearly pace, on top of a 4.9% gain in the first quarter. And factory unit-labor costs probably rose about 1%, after falling 1.3% in the first period.

CONSUMER INSTALLMENT CREDIT

Tuesday, Aug. 7
Consumers probably added about $2.8 billion in credit in June, according to the consensus of economists surveyed by MMS International, a division of McGraw-Hill Inc. In May, installment debt rose by $3.9 billion.

INITIAL UNEMPLOYMENT CLAIMS

Thursday, Aug. 9, 8:30 a.m.
New filings for state unemployment-insurance benefits probably stood at an annual rate of about 360,000 for t week ended July 28. That's about t same as the 358,000 claims filed in t week of July 14, but much higher th the 320,000 yearly pace of last summ The slowdown in the economy is beg ning to push up jobless claims.

PRODUCER PRICE INDEX

Friday, Aug. 10, 8:30 a.m.
The MMS consensus expects that prod er prices of finished goods rose 0.2% July, the same modest gain as in Ju Lower energy prices offset a small g in food prices. Excluding food and en gy, prices are expected to increase 0. down from their more rapid advance 0.6% in June, which was caused by sh runups in car and tobacco prices.

LIFE IS FULL OF COMPROMISES. YOUR GARAGE SHOULDN'T BE.

You want a sporty car, but then famy and practicality intervene, and you nd up with a station wagon instead.

Or you're determined to get a safe ar, which you do, but it turns out to e all work and no play, and you end up ored with it.

The examples are quite real and are arked in garages everywhere. They're so an excellent illustration of what rives people into a Saab 9000S.

The 9000S is, first and foremost, a ports sedan. It's powered by the largest ngine Saab ever built – a computerriven, 16-valve powerplant with an anestry traceable to the Saabs that once pamed Europe's toughest rally circuits.

Its suspension is extraordinarily age, and its anti-lock braking system takes ne panic out of panic stops. Overall hanling, wrote *Motor Trend*, is "exemplary."

But unlike many sporty cars, you on't have to abandon practicality for performance. The 9000S is the only European import to meet EPA specifications as a "Large" car based on interior space. Its trunk is 62% larger than the Acura Legend's. And when you fold down the rear seat, there's enough cargo space for a six-foot sofa or full-size refrigerator.

But unlike many roomy cars, the 9000S doesn't burden you with a vehicle of barge-like proportions. Despite all those cubic feet of sheer practicality, it's 3.9" shorter than a BMW 535i, which the EPA classifies as a "Compact."

Nor does the 9000S compromise when it comes to passenger safety.

In fact, according to the Highway Loss Data Institute, an organization of over 250 insurance companies that monitors safety through actual accidents out on the road, 9000-Series Saabs are the safest cars in their class. Safer than Volvo, safer than Mercedes-Benz.

All that comes with an eight-speaker AM/FM stereo/cassette system, electrically heated seats, a driver's-side air bag, and virtually every amenity imaginable – including some you probably wouldn't, such as an air filtration system that helps weed out pollen.

And at $25,495,* the 9000S costs substantially less than many of its one-dimensional rivals.

Of course, there are other ways to crowd all these automotive virtues into a garage. But that requires a multi-car garage.

We suggest a multi-car car instead: the 9000S, which is now at your nearest Saab dealer, awaiting your test drive.

SAAB

WE DON'T MAKE COMPROMISES. WE MAKE SAABS.

00S MSRP: $25,495, excluding taxes, license, freight, dealer charges and options. Price subject to change. © 1990 Saab-Scania of America, Inc.

COVER STORY

AUGUST 13, 1990

ARE WE IN RECESSION?

CALL IT WHATEVER YOU LIKE, THE AMERICAN ECONOMY IS IN FOR TOUGH TIMES

Ask almost any economist in A today whether the U. S. is in sion and you'll get "no" for an a The economy is still growing, so th be a recession, which by the conve definition consists of at least six of declining economic activity. Bu nearly any passerby in the street, almost any executive, and they're l say "yes." From coast to coast, cans feel in their bones that son has gone badly awry.

They're right.

Anemic growth, if not recession ginning to show up in the numbe gross national product eked out gain in the second quarter of 199 quarter was even weaker than th output suggests: If you exclude tion that went straight into inve final sales fell by 1.5%. That mean was no part of the economy—not c er spending, not business investme construction, and not even export tributing any strength this sprin haps worse, Commerce

isions for earlier quarters show economy was far weaker than thought: Growth averaged just he previous five quarters with a eleration beginning in the spring

cond quarter numbers are sub-vision, and many experts believe have overstated some weak ecially exports. But the report nomists and executives alike and worrying about the economy. aw-Hill, for instance, slashed its lf forecast from 1.5% growth in out 0.5%. "We'll be very close to" says Roger E. Brinner, chief at DRI.

AC.' Others are bolder. "We're some sort of recession," says i, chief economist at Boston Co. e do you call it when consumer and business investment de-wo out of the three latest quar-ll, one economist, David Hale of inancial Services Inc., calls it "a cyclical cul-de-sac," but not a recession. Officially, it's the National Bureau of Economic Research that declares a recession, but that's always long after the fact (box, page 32).

The name you choose to describe our current fix hardly matters. Even if we skirt recession, it's likely that economic activity, already weak, will remain anemic for a long time. For eight years, this expansion has been anything but typical. So there is no reason to expect its demise to follow a familiar course. It flies in the face of history, but this expansion could end not with a bang but with a whimper—and a long one at that.

That could be worse than a recession. Dismal growth may ultimately leave the economy on a slower growth path than would a recession followed by a rebound. Picture this: a chart with a V-shaped curve showing recession on the left side, a rebound on the right. Now, compare that to a line that slopes gently upward toward the right. Because a contraction creates slack in the economy, when consumers finally start spending and businesses hire and invest again, the bounce-back could easily put the economy on a higher growth trajectory than an extended period of muddling through.

Nothing, of course, is foreordained. The Federal Reserve Board—which in mid-July pushed interest rates down a notch—may move aggressively to ease them further. The dollar could continue falling. Either event would restimulate the economy. But the reprieve would be brief. It's not that the nearly eight-year-old expansion is running out of steam, though that may be the case. And it's not that there are cyclical excesses such as inventory pileups, though they could develop. Instead, there have been huge structural excesses. In the 1980s, we overborrowed, overbuilt, and overspent.

As long as home prices were climbing and incomes were rising, it was O. K. to take out that home-equity loan. As long as profits were healthy and corporate breakup values were attractive, it made sense to leverage up. As long as foreigners were buying American paper, it was

REAL ESTATE **OPEN HOUSE IN LOS ANGELES: 34 OF 83 METROPOLITAN AREAS REPORTED LOWER OR UNCHANGED SALES PRICES IN THE FIR QUARTER OF 1990. HOMEOWNER EQUITY FELL BY $70 BILLION IN THE SAME PERIOD**

acceptable to run a budget deficit.

But it was fanciful to assume that demand would stay strong forever and incomes would keep rising. Today, consumers, business executives, state officials, and Washington politicians are paying the price of those delusions. Households are battening down, banks are lending less, capital spending plans are on hold, state taxes are going up, and Washington is debating a deficit-cutting package with more urgency.

Taken together, that makes the Fed's goal of ratcheting down inflation without spawning a recession immeasurably more difficult. So far, it has succeeded in averting a recession, at least as technically defined by statistics that are constantly being revised. But even if the Fed can stay the course, that doesn't mean the future looks all that attractive. Simply put, the price we pay for the excesses of the 1980s could be long and painful: America may enter a period of "sclerosis" similar to that which afflicted Europe in the late 1970s and early 1980s, warns Neil M. Soss, First Boston Corp.'s chief economist.

Certainly, the warning signs are spreading fast. It's not just commercial real estate developers who are hurting, and the pain is no longer confined to the Northeast. Variations across regions do persist: The Pacific Northwest remains strong, Texas is recovering from the oil-price plunge of four years back, and the Midwest's farm and export-driven economy is growing.

REACHING THE LIMIT. But across the nation, America's debt binge is now being followed by the inevitable hangover. In the wake of the savings and loan fiasco, bank regulators are casting a watchful eye on lenders, and for several months smaller borrowers have been complaining of a credit crunch. But with incomes and sales weakening, it's clear that borrowers as well as lenders are reaching their limits. The debt outstanding held by households, businesses, and the federal government has more than doubled to $9.86 trillion since 1982. All alo mortgage foreclosure rates march higher while bankruptcies, both perso and business, have climbed nearly ev year. If people and businesses could become delinquent on their debt in stro times, the numbers are certain to wo en as output weakens.

The legacy of overborrowing a overbuilding afflicts the whole econo First, the all-important consumer: Th who own homes, fully 63% of the hou holds, are seeing values erode. D from the National Association of R tors show that in the first quarter 1990, 34 of 83 metropolitan areas in U. S. reported lower or unchanged m an sales prices for existing homes c pared with the previous quarter. Inde in the first three months of t year, the value of consumer equ in homes fell by $70 billion to trillion, according to Goldm Sachs & Co.

In the 1980s, rising home val buoyed consumer confiden Now, the process works in verse. For every dollar of hous value lost, consumer spending cut by about 10¢ over a period two and a half years, says Chri pher P. Varvares, vice-presiden the forecasting firm Laurence Meyer & Associates. That me that based on the first quart

MANUFACTURING **MAKING TOILET PAPER AT GEORGIA-PACIFIC**

alone, consumption will be shaved as much as $7 billion over a few ters. That's not a huge number, but one factor that may grow in impor- e in coming months, especially if e prices keep sliding. Homeowners curtail spending, and if they've as- ed mortgages based on higher s, they may have to scramble.

oseann Wohlert of San Jose, Calif., case in point. Five years ago, she her husband bought a new four- oom, three-bath home for $180,000 e foothills east of San Jose, com- with pool, spa, and ium. By June, 1989, house was valued at ,000. And Wohlert had n out a home equity to invest in her hus- l's business.

ow divorced, Wohlert ls to sell, but she's k with a house she unload—and that eq- loan. She has slashed asking price from ,000 to $379,000, and taken a part-time job help make payments. mother of two, she s to look for a full-time soon, and hopes to sell move to Florida. "Un- there's a major emer- cy," Wohlert says, "I't be so quick to take ther] equity loan."

ING CASH. Elsewhere, umers are feeling the h of disappointing in- es. Leo Petrykowski girlfriend Cathy e, having moved last from California to necticut, are living in th Haven with Roche's ily in what 37-year-old ykowski calls a "reces- house." Of the seven ple living in the three- oom home in a middle- s neighborhood, only e have full-time jobs. he earns $21,000 a year he billing department health care company. Petrykowski by on temporary work. "It's scary," ays. "This is a middle-class family in ce neighborhood. We're able-bodied, lligent people willing to work. Not ago, we were in the swing of gs."

ther consumers who aren't facing fi- cial distress are nonetheless begin- to rethink their spending and bor- ing habits. Debora Dierker, a duction coordinator at E! Entertain- t Television in Los Angeles, is wor- about the economy's health and America's competitive position globally. "We'd better start living like our parents and their parents did and start paying cash for things—or else we're going to be really sorry." So Dierker, 27, says she's altering her "frivolous" spending habits. She and her fiancé are trying to pay down a combined $12,000 in credit-card charges and using cash more often.

That kind of budget-tightening by consumers is apparent in the aggregate spending numbers. In last year's final quarter, personal consumption expenditures fell at a 0.8% annual rate, then revived to grow a slim 1.1% in the first quarter, only to fall 0.3% in the second quarter (page 25). Consumption rarely declines for a sustained period, but since it accounts for two-thirds of GNP, even small shifts can make a big difference. Especially notable in the last period was that both durable and nondurable goods purchases fell, with only purchases of services growing, and even then only modestly.

The spending reversal could be more dramatic, and last even longer, if employment starts worsening. For two years, the unemployment rate has hovered around 5.3%, but economists believe it's poised to jump. DRI's Brinner says it could easily hit 6% by yearend, and that payrolls may be cut by more than 100,000 a month in the second half. Already, 35 states reported employment declines in the second quarter, says Brinner. If the national figures begin to confirm these declines, that'll surely push consumer confidence lower and restrain spending further.

But most businesses haven't slashed payrolls yet. And until recently, most manufacturers, except in the Northeast, were singing a happy tune. That's not unusual, since businesses often lag in response to changes in demand. Still, some manufacturers now are saying that things don't look quite so cheery. The purchasing managers' index for July, the first reading on how the second half of 1990 started out, showed a downbeat figure of 47.4%, off from 51.1% in June.

And in a BUSINESS WEEK survey of manufacturers' health around the country, a couple of major companies begged off, saying they just weren't sure what condition the economy or their markets were in. One senior executive at a major Midwestern manufacturer didn't want BUSINESS WEEK to use his name: "The heavy goods manufacturing economy has been in a recession, or whatever you want to call it, for some time. That's disturbing because that's where some of the highest-value jobs are located." Heavy-truck demand, for instance, dropped about 30% in mid-1989, and has stayed at depressed levels ever since.

Export demand still sustains many Midwestern manufacturers. But slipping consumer demand is taking its toll elsewhere. "The slowdown in consumer spending can be felt all the way to the mill," says Neil H. Hightower, chief executive of Thomaston Mills Inc. a Thomaston (Ga.), textile outfit. "Short-term, we feel like we're definitely looking at a slower economic environment." And Bettis C. Rainsford, co-founder of Delta Woodside Industries Inc., a Greenville (S. C.) textile maker with $569 million in sales, is even gloomier about the econo-

DEFENSE **AN F-117A STEALTH FIGHTER IN LAS VEGAS: CUTBACKS WILL LIKELY BRING ON REGIONAL RECESSIONS AS JOBS ARE LOST**

CONSUMER SPENDING **SAILBOATS FOR SALE IN A PORTSMOUTH (R.I.) YARD: LENGTHY DRY-DOCK?**

my's prospects. "We could be looking forward to a number of years of difficulty . . . I think we will be in some kind of prolonged economic slump."

The pressure on profits isn't letting up. BUSINESS WEEK's second-quarter profits scoreboard (page 58) shows a 7% decline, the fourth in a row, but less of a drop than in previous quarters. With Detroit in a slump, auto makers had to boost incentives in the second quarter to push cars out the showroom doors. Even so, sales were disappointing. The combination of incentive costs and slower sales sliced second-quarter earnings 46% at Chrysler, 45% at Ford, and 38% at General Motors.

It's hardly surprising that corporate profits are hurting: Revenues are growing more slowly while costs keep rising. One component of costs that's taking a bigger bite is debt payments. While the corporate borrowing binge of the 1980s has stopped, the after-effects are still being felt. According to Robert A. Schwartz, a Merrill Lynch & Co. financial economist, 27.3% of corporate cash flow went to service debt in the first quarter, which ties the all-time high for that ratio during the depths of recession in the third quarter of 1974. And although final numbers aren't available for the second quarter, the ratio is probably still rising, Schwartz says.

When consumers cut their spending, income growth slows, and profits decline, the tax collector notices. Around the nation, local budget directors are scrambling to meet state-mandated budget-balancing requirements. And unlike the federal government, most states can't operate on a deficit. What's more, many states are finding that they have to pick up where the federal government left off, and raise spending on vital social services and infrastructure. The choices: increase taxes, slash budgets, or both.

In Florida, revenue growth of 5.3% simply couldn't cover what would be a 19% growth in expenditures in the 1990-91 budget, up from $23.2 billion last year. So a series of tax increases, from gasoline to alcoholic beverages, were imposed to bring in an extra $1.3 billion. In Texas, the lingering effects of the savings and loan debacle and potential cutbacks in the defense industry are surfacing. Meanwhile, the state legislature, which generally meets every two years, recently held a series of special sessions and approved new sales and excise taxes to fund a $500 million shortfall. Even California, birthplace of the antitax revolt, is mulling new taxes as it contends with a budget crisis.

The budget pressures mean that only a handful of states—perhaps no more than 10—can boast that they are still in relatively good financial health, says DRI economist David Wyss. And the aggregate increase in state and local taxes this year is likely to amount to about $20 billion. That figure alone could slice about half a percentage point from growth over the next year and a ha

That fiscal drag will only be co pounded early next year, of course, Congress and the Administration rea agreement on a budget package. T biggest culprit in the debt binge of t 1980s was the federal governme which cut income taxes and abandon fiscal restraint in the interests of ra growth. Today, the government is faci the unexpected cost of making good deposits at failed S&Ls—themselves t byproduct of an over-veraged system. Th coupled with growi spending on entitleme programs such as me care and slowing re nue growth, is busti the budget. Includi the S&L bailout, the de cit is seen topping $1 billion in the current f cal year.

PUNCH DRUNK. It wo have been wiser bring the deficit und control when the eco my was growing at or more a year, becau absorbing the shock shrinking governme spending would ha been easier. Now, w the economy far mo fragile, landing anoth punch will send it re ing that much more e ily. As usual, the ta of managing this p cess has fallen to t Fed. Throughout t expansion, the Fed h been a model of straint in a time of e cess—its primary obje tive has been inflati fighting rather th recession avoidan Now, Alan Greenspa Fed will try to navig the economy past rec sion. If it succee though, the Fed w have assured the eco my of a long period of halting growth best. Consumers will be reluctant spend, and business will be loath to vest. People may soon find themsel wishing for an old-fashioned recession short and sharp—if only so they can l er enjoy an old-fashioned rebound, w all the dynamism, energy, and possib ties that promises.

By Karen Pennar, with Christopher Farrell New York, Chuck Hawkins in Atlanta, Ty H land in Los Angeles, Barbara Buell in S Francisco, and bureau reports

THE ARBITERS OF RECESSION

What's a recession? Most economics texts define it as two consecutive quarters of declining output. But don't tell that to the National Bureau of Economic Research, the private group that officially decides when a recession has begun. Says Robert J. Gordon of Northwestern University, one of the seven economists on the NBER panel that makes the call: "I've never heard the committee even discuss that sort of rule." Instead, the panelists take a look at everything from employment to housing to consumer confidence. Then they hash out if the decline is sharp enough and broad enough to be called a recession.

NO HURRY. There's usually little argument with the finding. Now mainly known as a sponsor of academic research, the NBER helped pioneer business-cycle dating in the 1920s. The government, a Johnny-come-lately, accepts the NBER's judgment because "I don't think we could do a better job," says George R. Green, a top statistician at the Commerce Dept.

But don't hold your breath for the next NBER ruling. The panel meets rarely—the last time was in July, 1983—and it usually waits until the evidence is clear. Now, a session is unlikely until yearend—and then only if the third quarter is a disaster. Says Gordon: "No one will use the big 'R' word until we see a real decline in GNP."

If you can't wait that long, there's an alternative. The deficit ceilings imposed by the Gramm-Rudman law get lifted if the economy becomes too fragile, which the act defines as GNP growing by less than 1% for two straight quarters. In the first half of 1990, the economy performed just a smidgen better than that.

By Michael J. Mandel in New York

RECESSIONS: THE RECENT RECORD

Starting date	Months
APRIL, 1960	10
DECEMBER, 1969	11
NOVEMBER, 1973	16
JANUARY, 1980	6
JULY, 1981	16

DATA: NATL. BUREAU OF ECONOMIC RESEARCH

MAIL BOXES ETC.™ NOW OFFICIAL DHL DROP-OFF CENTERS

RAPID TRANSIT AUTHORITY.

Our credentials? We can get your document or package between major U.S. cities in the same day.

We deliver overnight to 189 locations overseas. We're faster than Federal Express to 127 countries.

And we go to more countries around the world than Federal or UPS. Nearly 190, and counting.

We've been the authority for more than twenty years. And every day, it shows.

For same-day service, call 1-800-DHL-ASAP. Or for express overnight service, 1-800-CALL-DHL.

Plus you can now drop off your package at any participating Mail Boxes Etc. location.

DHL WORLDWIDE EXPRESS

FASTER TO MORE OF THE WORLD

THE WORKPLACE

THE PRICE OF DISCRIMINATION MAY WELL GO UP

A new civil-rights bill would allow jury trials and punitive damages

Alan F. Gersman is waiting impatiently for Congress and the White House to come to terms. The owner of a small Washington-based computer-services company, Gersman says he lost a contract with a prepaid health plan after one of the client's managers asked, "Are you a Jew?" He said he was, and two months later his contract was terminated. Gersman's 1989 discrimination suit was dismissed after the U. S. Supreme Court threw out the precedent on which he relied.

Now, Gersman and thousands of other would-be plaintiffs are keeping close watch on legislation designed to counter recent Supreme Court decisions that make it more difficult for contractors and employees to win discrimination cases. On the other side, business dreads a flood of litigation if Congress makes it easier for disgruntled employees to claim discrimination and allows jury trials and monetary damages in cases of intentional discrimination (table).

PITCHED BATTLE. Who wins depends on the outcome of a pitched battle between Congress and the White House over the legislation's breadth. Though civil-rights groups claim they are only restoring laws overturned by the Supreme Court, the measure, in fact, goes much further. For example, women would for the first time be able to seek damages in sexual-harassment cases. And while most employment disputes now are handled administratively, the bill would in many cases allow jury trials. Further, with the passage of the Americans With Disabilities Act, the handicapped would be eligible to sue and win punitive damages for discrimination as well.

President Bush has threatened to veto the bill as passed by the Senate. But many backers of the measure think he's bluffing: Republicans won't want to risk losing black support at the polls this fall and in 1992, they say. As a result, Democrats are refusing further compromise.

The public fight over the bill has been a noisy argument over whether it mandates hiring quotas. Employers and their allies claim they would be forced to make sure their total work force reflects the demographic makeup of the community. And they fear they would be vulnerable as well to reverse-discrimination suits from whites. "Somebody is going to sue me if I don't hire a minority, and somebody is going to sue me if I do," says Douglas P. Crew, a Washington lobbyist for Caterpillar Inc. Civil-rights groups vehemently deny that companies would have to use quotas.

But the quota argument may be a smokescreen. Instead, the really vital issue may be the introduction of monetary damages as a remedy for discrimination and the expansion in the number of people who could sue. "Introducing damages is a radical departure from employment law," says House Small Business Committee Chairman John J. LaFalce (D-N. Y.). "This will flood the federal courts with litigation."

MUTED OPPOSITION. A series of attempts at a compromise have foundered. The latest substitute, proposed by LaFalce and quickly endorsed by business and the White House, would cap damages at $150,000. There would be no jury trial. The House Democratic leadership on Aug. 1 dismissed the offer.

The negotiations are stymied for other reasons. One is the curious silence of major companies. Trade groups, including the ad hoc Fair Employment Coalition, which represents such groups as the Business Roundtable, are carrying the lobbying load. Coalition officials say such major corporations as Kodak, 3M and Procter & Gamble are upset with the bill, but all declined to make their executives available for comment.

Even within the ranks of business there are factions. Big business' opposition is muted because Corporate America has learned to live under government decrees designed to increase minority job opportunities. And even though small business is aligned with conservatives in opposing government intrusion into employment decisions, individual small companies have not been that vocal. Says a spokesperson for Senate Small Business Committee Chairman Dale L. Bumpers (D-Ark.): "Quite honestly, there hasn't been very much ma on this at all." The absence of business players, says an Administration source, "has been a problem all along. We aren sure where they stand, and they aren always speaking with a single voice."

Nor does the White House speak with one voice. According to civil-rights leaders, Chief of Staff John H. Sunun seems more ready to bargain than doe White House Counsel C. Boyden Gra "It's like dealing with the Iranians says one lobbyist. "You never kno which faction is in power."

For all the posturing, the reality tha discrimination persists is pushing th parties toward compromise, possibl when the House and Senate meet in conference committee in the fall. An that will be good news for the Ala Gersmans of the world.

By Paula Dwyer and Tim Smart i Washington

GERSMAN: A CONTRACT WAS CANCELLED AFTER A CLIENT FOUND HE WAS JEWISH

THE CIVIL RIGHTS BILL: WHAT'S BOTHERING BUSINESS

- An employee who claims a business' hiring practices are unfair to women or minorities would no longer have to define those practices, only show their discriminatory effect. Business says this will lead to frivolous lawsuits
- Once a lawsuit is filed, the bill would shift the burden of proof to the company. Business claims this will lead to hiring by the numbers
- Victims of workplace discrimination could win compensatory—and even punitive—damages instead of just back pay. Further, cases could be heard in jury trials instead of administrative hearings. Business fears expensive litigation

DATA BW

Commentary/by Michele Galen

A SANE STRATEGY FOR SOLVING THE ASBESTOS CRISIS

n late 1988, Manville Corp. set up a rust fund to pay current and fu-ure victims of asbestos-related dis-es, exited six years of bankruptcy eedings, and declared its asbestos s solved. And as Manville faded n the headlines, asbestos litigation d from public view.

ut the asbestos crisis never went y. Now, tens of thousands of dam- cases by workers suffering from estos exposure are clogging the na-s courts. And there's not nearly ugh money to compensate the ving numbers of victims. Even the ville personal injury settlement t has run out of cash.

e situation is so dire it recently mpted an extraordinary ting among federal state judges, law pro-ors, and lawyers on sides of the asbestos e. And an ad hoc p of federal judges the largest asbestos ets is set to meet n on Aug. 10. Mean-e, a federal judge seeing 571 cases in-ing workers from the klyn Navy Yard who sued Manville and rs has outlined how ville's troubles can be d. The goal of all the es: forge a national ensus for unclogging courts of asbestos s—and pressure Con-s into taking action.

e judges seem to be headed in the t direction. To clear the courts' ets, cases should be rolled up into s actions or other consolidated pro-ings that lump together hundreds laims and settle common issues si-taneously. The cash shortfall can't ixed: The potential liability is just high. To move forward, the asbes-problem should be quantified once for all, and the money distributed tably until it runs out.

STANCE. Changing the status quo't be easy. Having spent six years ing a compromise in bankruptcy t, Manville isn't eager to have the s changed now, especially if it ns coughing up more cash. Law-who represent victims aren't anx-to accept cuts in contingency-fee rds, which sometimes swallow up 40% of a judgment. Any solution will likely require some powerful judges to give up a piece of their clout. And it may even take an act of Congress.

Even so, a national solution is critical to freeing the courts of asbestos—and it's an idea that seems to be catching on. A week after U. S. District Court Judge Jack B. Weinstein on July 9 suggested a mandatory national class action as a way to "maximize a prompt, fair recovery to all claimants," a federal judge in Cleveland established just such a class. Then, lawyers for some 20,000 asbestos victims filed a motion in Texas seeking a national class action against more than 50 companies. And a few days later, former asbestos maker Eagle-Picher Industries Inc. filed a similar motion in the New York case.

To go any further, Congress must loosen the standards for class actions in massive tort cases. Federal rules and judicial precedents now prevent asbestos claimants, with few exceptions, from being forced to take part in a class action. But without such mandatory participation, companies can never determine their ultimate liability. And such uncertainty encourages defendants to play hardball. "They won't settle because they don't know how much money to reserve for the future," says Mary Kay Kane, a law professor at the University of California's Hastings College of Law who is advising the judges on legislation that would promote class actions.

CAP ON FEES. Allowing class actions in asbestos cases would also attack another big problem: The presiding judge could cap the lawyers' fees and so free more money for victims. In Manville's case, of the $666.8 million paid out to 15,684 claimants by the trust, an estimated $200 million went to their lawyers. And the trust has incurred $36.6 million in litigation defense expenses. That needn't go on (table).

Asbestos makers have been battling suits for 15 years or more. And epidemiologists estimate that the number of asbestos victims will continue to grow at the rate of 10,000 annually through the next century. Rather than try to devise a system that theoretically could compensate victims indefinitely into the future, as the Manville trust is structured to do, the time has come to tote up the nation's asbestos bill.

One way is to set up what Kane calls a "massive national trust fund." The fund should be financed by defendants, and perhaps the government, based on estimates of their current and future obligation to victims. Kane even suggests adding a onetime punitive damage assessment against the companies. Payouts should be made on a prorated basis that considers the fund's annual income, the number of claimants, and the severity of their illness. And the system should pay the neediest or sickest claimants first.

All this is impossible without big compromises. But now that the judges have taken the first steps, they should be cheered—and wished Godspeed.

HOW TO FIX MANVILLE

- Get Manville to advance enough money to cover the immediate cash shortfall in the Manville personal injury trust
- Abandon the trust's first-in, first-out payment plan in favor of a payout system based on severity of illness
- Devise a payment system for lawyers that rewards settlements more than litigation
- Cap fees to both plaintiffs' and defense lawyers
- Quantify Manville's current and future liability to ensure the viability of the company and of the trust

DATA BW

A mandatory class action would define the problem's boundaries—and distribute the money equitably

EXECUTIVE SUITE

LOADING UP AN EMERY PLANE: A SLIGHT SECOND-QUARTER PICKUP ISN'T REASSURING ANYONE

IS EMERY TOO HEAVY FOR CONSOLIDATED FREIGHT?

Picking up the air shipper cost millions—and led to the CEO's ouster

C[illegible] ness by delivering surprises. But CF unloaded a doozy after a three-hour [illegible] the company's miserable performance since last year, when Chief Executive [illegible] Freight Corp. for $478 million. CF's board ousted Scott and took control.

Scott's undoing was his inability to turn around Emery and shore up CF's tumbling stock, says a source close to the board. Although Scott made it clear that Emery was a long-term investment, says the source, "when things unravel [illegible] ogy may be a bit strong: Officially, Scott, a 23-year CF veteran, resigned. The company wouldn't elaborate, and Scott couldn't be reached for comment.

There's no question, though, that CF, based in Menlo Park, Calif., is in sorry shape, thanks to Emery. The sickly air shipper has racked up $100 million in operating losses in the first six months of this year alone, contributing to CF's [illegible] billion in the same period. And Emery's inadequate financial controls and persistent service problems have so far frustrated CF's attempts to straighten out its wayward acquisition. As a result, CF's stock has plummeted to about 15, from a post-crash high of 37¾ in January, 1989, knocking almost $800 million off its market capitalization.

So far, CF has done little to assure investors that a recovery plan is in place. Instead, the board reinstalled the old guard, putting Chairman Raymond F. [illegible] Consolidated's CEO for 11 years until Scott took the reins in 1988. Meantime, 69-year-old Director J. Frank Leach, for[illegible] president, Deadpans Donaldson, Lufkin & Jenrette Corp. analyst Paul R. Schlesinger: "We didn't know new manage[illegible]

CARETAKERS? He raises an obvious issue. O'Brien and Leach clearly aren't in place for the long haul. And they're unlikely to continue Scott's ill-fated turnaround plan. Rumors have been flying in the industry that CF's investment bankers, Wasserstein, Perella & Co., have been shopping Emery, and possibly all of CF. At least one major institutional [illegible] the board may have installed "caretaker" managers while [illegible] seeks a friendly buyer. Neither CF [illegible] Wasserstein Perella will comment.

> For now, CF old-timers Leach and O'Brien have been reinstalled—but they're not likely to stick around for long

But it will be tough to find a buy[illegible] willing to shoulder the problems th[illegible] have bedeviled CF management. Shock[illegible] when Scott bought Emery last year, o[illegible] rival isn't surprised at the company[illegible] current stew. "They'd be better off ju[illegible] writing it off," he says.

Or would they? Schlesinger says th[illegible] permanently grounding Emery wou[illegible] cost CF $100 million in cash—largely [illegible] retire lease obligations. The compa[illegible] would also have to write off $400 milli[illegible] in goodwill. A spokesman says only th[illegible] CF's intention is to make Emery prof[illegible] able. For now, no search committee h[illegible] been formed by the board to find [illegible] placements for O'Brien and Leach.

Scott's departure suggests that t[illegible] first faint signs of a turnaround at E[illegible] ery may be illusory. In March, Scott sa[illegible] confidently that Emery was over t[illegible] worst of its problems. And second-qua[illegible] ter numbers did outpace analysts' expe[illegible] tations, with Emery losing $31 millio[illegible] vs. $69 million in the first quarter. Ev[illegible] customers were encouraged. "W[illegible] thought they were making a comeback," says J. C. Penney Co. Transportati[illegible] Manager Peter J. Brock.

MORE RED INK. Just weeks before his d[illegible] parture, Scott announced a deal that a[illegible] peared to strengthen his hand. He had [illegible] commitment letter from a group [illegible] banks led by New York's Chemical Ba[illegible] Corp. to boost CF's credit line to $8[illegible] million over the next five years. As pa[illegible] of the deal, CF suspended its cherish[illegible] dividend for the first time in 18 years.

But the agreement has yet to [illegible] signed. And analysts say seasonal fa[illegible] tors will probably drag Emery's thi[illegible] quarter numbers further into the re[illegible] "Emery is still a long way from a tur[illegible] around," insists Joseph L. Feshbach, [illegible] Palo Alto (Calif.) short-seller who h[illegible] heavily shorted the company's stoc[illegible] Feshbach and several analysts ha[illegible] questioned whether Emery's secon[illegible] quarter upturn was as strong as it a[illegible] peared. The company's reported opera[illegible] ing loss of $31 million would have look[illegible] worse if the final number hadn't inclu[illegible] ed a onetime gain of $5.7 million f[illegible] early termination of some airpla[illegible] leases. The company defends its accour[illegible] ing treatment and denies that the ba[illegible] agreement had any influence in Scot[illegible] departure.

In any event, it's clear that Consolid[illegible] ed made a huge error in buying Emer[illegible] And it will take more than removi[illegible] Scott to turn things around. Whatever [illegible] does, CF is likely to be negotiating [illegible] bumpy road for some time to come.

By Joan O'C. Hamilton in San Francisc[illegible]

THE
POWER
BEHIND
THE PRESS.
KODAK

Commentary/by Robert Barker

GOSH, IF ONLY GEORGE STEINBRENNER WERE *MY* DAD

Aug. 1, 1990
Dear Dad,

You really let me down.

No, don't worry, you didn't forget my last birthday, when I turned 33. And I'm just a little bit mad that you didn't bother to send me a Father's Day card now that I've got a kid of my own. I forgive you. It's just this news in the paper today. Looks like this other 33-year-old guy gets to take control of the New York Yankees.

You must know what I'm talking about. The baseball commissioner is giving Yankees boss George Steinbrenner the boot for having kept company with a small-time gambler, a guy known at the track as The Weasel. Steinbrenner is out!

WITH SUCH A FATHER . . .

. . . A SON'S GOT IT MADE

Great news, right? But did you see what happened next? The commissioner is letting Steinbrenner hand control of the Bronx Bombers, the nation's most valuable sports franchise, to his son Hank. Now you know, Dad, that's a job I wouldn't mind having. Next to the magazine biz, the pay is pretty good, and the food is better. I've gotta tell you straight out: I'm so envious my face is breaking out in green pinstripes. And you know what else? This whole Steinbrenner thing makes me wonder what you've been doing all this time.

How many years did you toil at that big defense plant in California without firing any of the project managers who worked for you? And even if you did fire a few, how often did you then turn around and rehire them a year later? How many times did you call a press conference to complain about malingering among the workers on the assembly line? And when did you ever get into a fistfight in a hotel elevator to defend the honor of those same malingerers? If you had caused even half the ruckus George Steinbrenner has kicked up, I reckon I could be running the Pentagon by now.

I know, I know. You cheerfully gave Richard Nixon your vote for President three times. In fact, you voted for him no fewer than seven times if you want to throw in his Senate, gubernatorial, and Vice-Presidential races. But did you ever once think to go around collecting campaign funds for Mr. Nixon? And were you ever caught and convicted of conspiring to raise political contributions illegally? Steinbrenner was. Did anyone ever suspend you from your job for two years because you pleaded guilty to a federal offense? Admit it, Dad: You're so clean you've just about crippled my career.

Not once did you head off to the track to play the ponies, much less hang out with professional gamblers. Never did you introduce me to a single guy named The Weasel. Heck, any time Mom got anywhere near a slot machine you looked like you might throw a fit. Instead, you insisted on working, working, working, and saving, saving, saving. Talk about boring! Your idea of charity was to match any money I tucked away in my piggy bank. I suppose you imagined your quaint ideas about the virtue of thrift might rub off on me. Have you seen my bankbook lately? There's not enough in there to supply the hot dogs for one game at the House that Hank Runs, never mind the mustard.

And anyway, where did all this virtue get you? When you retired, the defense contractor gave you a pension and a pen-and-pencil set. More to the point, where did your misspent years get me? I'm working for a paycheck, and I've got to call in sick to make it out to a day game. So, Dad, please understand why I'm tipping my cap to George: With a dad like Steinbrenner, a boy has got it made.

APPAREL

LIZ CLAIBORNE'S RAG TRADE-OFF

Its sizable discounts for retailers could earn it more shelf space

When a company has just r ported a 21% jump in quarte ly profits and expects reco annual earnings of $200 million on sal of $1.7 billion, it would hardly seem u der pressure to cut a sweet deal f retailers. But that's exactly what I Claiborne Inc., the designer of affo able women's fashions, did in late Jul

In a surprise move, Chairman Jeror A. Chazen announced that starting wi its spring line, due out late this ye Claiborne will give a 10% discount retailers that pay for their merchandi within 10 days of getting it. The d count—25% more than the 8% indust standard—doesn't apply to makeup, a cessories, or men's apparel but affec 70% of Claiborne's business and will co some $25 million in yearly profits.

MANY HEADACHES. Why is Chazen fe ing so generous? "We've been trying address the issue of margin probler the retailers are having without aski the consumer to pay for it," he says. I certainly true that some key, debt-lad customers for Liz Claiborne appar such as R. H. Macy & Co. and divisio of Federated Department Stores and lied Stores, need to watch every penn

But Chazen is no altruist: Compe tors, analysts, and customers figure smells opportunity in the chaotic depa ment-store and apparel industries. In t 1980s, many department stores thoug they would save money by selling p vate-label designs. That bright idea sa dled the retailers with manufacturi headaches and unsold merchandis since they had little experience overse ing manufacturers and American co sumers proved stubbornly loyal to mo famous designer labels.

Now, many department stores a pulling back on their private-label pr grams, and somebody has to fill tho shelves and racks. Says Robert M. Rai an analyst at C. J. Lawrence, Morga Grenfell Inc.: "If Macy's is 30% priva label, and they go to 25%, who's going pick up the business?" The answer cou quickly become clear. "It was a ve perceptive move on their part," sa Bloomingdale Inc. CEO Marvin S. Trau "It will give a buyer a second thoug about giving them more space."

Chazen is also capitalizing on the dif

astman Kodak Company, 1989

An imposing majority of today's magazines and newspapers are designed and written on the screens of Kodak Atex computer systems.
Kodak Atex systems have been the favorite of magazine and newspaper journalists around the world for over 15 years. Publications large and small are designed and written on computers driven by Atex software. The latest evolution: a totally integrated PC-based system for magazine art, editorial and production/makeup departments. Other kinds of publications—instruction and training manuals which need frequent updating, for example—are created on the screens of Kodak electronic publishing systems.

We are more than photographs. We are the world's premier graphics imaging company.
For more details on enhancing the graphic arts tradition, call your Kodak representative.

Graphic Arts GASA SUPPLIERS ASSOCIATION
1990 Manufacturer of the Year

CREATE IT WITH KODAK

The new vision of Kodak

cult times afflicting the rag trade. Menswear manufacturer and retail merchant Hartmarx Corp. lost $55 million in the second quarter. Bernard Chaus Inc., a major apparel maker, scarcely made any money in the second quarter. Salant Corp., owner of Manhattan Industries, which makes Perry Ellis lines, filed for bankruptcy protection in June. Claiborne, by comparison, has a strong balance sheet with almost no long-term debt. The early-payment discount, says industry consultant Alan Millstein, "is like an inexpensive insurance policy. It brings them goodwill, increased units from the stores, and elbows its weakened competitors."

Most other suppliers say they won't follow Claiborne's lead. "Am I going to do it? Hell, no," says B. Brand Konheim, president of Nicole Miller, a supplier to The Limited Inc. and other stores, who is considering eliminating the discount altogether. Some, though, are more solicitous. "Everyone is trying to help t retailers' margins in their own way says Leonard Rabinowitz, chairman dressmaker Carole Little, who pays r tailers' freight costs. If the retailin business gets any tighter, though, t department stores may treat Claiborne increased discount as a precedent. Th could start demanding similar conce sions from manufacturers that can afford to give them.

By Laura Zinn in New Yo

BANKING

THE REMAKE OF THE REMAKE AT CONTINENTAL BANK

This may be CEO Theobald's most sweeping overhaul to date

If this is mid-1990, it must be time for another Continental Bank Corp. facelift. In 1987, the bank sold local outlets, shuttered European offices, and axed its municipal-bond desk, all to support its transformation into a global merchant bank. In 1988, it abandoned retail lending, bolstered foreign-exchange trading, and applied, unsuccessfully, to form a stock-underwriting unit. In 1989, Continental formed an investment banking unit and put its First Options securities-clearing business on the block, where it remains today. No one can accuse CEO Thomas C. Theobald of being tied to tradition.

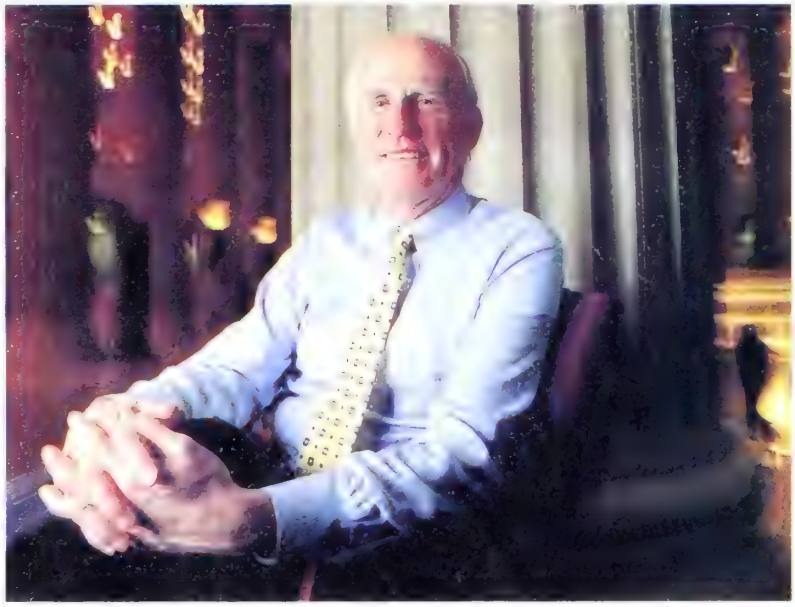
SWEEPING. Being tied to the federal government is another matter. Since its 1984 bailout by the Federal Deposit Insurance Corp., Continental has operated under the agency's watchful eye—to the detriment, say bank executives, of attempts to enter new businesses and retain wary customers. That extra-close regulatory relationship is about to end. On July 26, Continental announced plans to sell the FDIC's remaining 26% stake in the bank. This comes just as Theobald has finished his most sweeping makeover, which he insists is in keeping with his strategy of responding to marketplace demands. "This isn't exactly a fashion industry," Theobald says, "but things do change as to what the customer needs."

Continental's latest tack is one of strategy by subtraction. In March, after an early look at first-quarter numbers that eventually produced a drab $56 million profit, Theobald ordered a pro uct-by-product review of the bank's bu ness. The result was the axing of 9 jobs, an exit from the commodities ex cution and clearing business, and t shuttering of foreign-exchange tradi desks in Tokyo and London. The ba took a $48 million hit but expects annu savings of $75 million.

The dreary financial results led t top brass to conclude they had no choi "You either wait it out or choose to something about it," says Hollis W. R demacher, the bank's chief financial of cer. "We chose to do something abo it." Each of the jettisoned subsidiari was falling well below Continental's g of 30% gross profit ma gins and 15% return equity.

Management insis the bank can thrive picking its targets ca fully: interest-rate ri management, debt di tribution, corporate nance, and priva banking. The mix is signed to keep inta Continental's core clie list: about 2,000 larg and medium-size comp nies, most based in t Midwest. "We're n downsizing in ever thing," insists Rad macher. "My Go we're not trying to out of business here."

SWOONED. What Con nental is trying to do turn around some pre ty bad numbers. Con nental's ongoing oper tions lost $46 million the second quarter, no interest expenses ro 37%, to $221.7 millio and salaries rose 11 It could have bee worse: A $25.9 milli recovery on a loan a developing count saved the bank fro



THEOBALD: A DRAMATIC DOWNSIZING—AND AN END TO FEDERAL OWNERSHIP

Eastman Kodak Company 1989

When a page is captured, the film, camera, scanner, chemicals and processor are likely to be from Kodak. As are the experts who stand behind them.

Kodak has been a leader in film, chemical and processor technology almost since there was a graphic art. Now we are leaders in electronics, easing the evolution from one technology to another. Whatever the product, there are always Kodak people backing it up, helping customers "get it right the first time," sharing knowledge. And there always will be.

We are more than photographs. We are the world's premier graphics imaging company. ***For more details on enhancing the graphic arts tradition, call your Kodak representative.***

Graphic Arts GASA SUPPLIERS ASSOCIATION
1990 Manufacturer of the Year

CAPTURE IT WITH KODAK

The new vision of Kodak

doubling the quarter's $25 million loan-loss provision.

That faltering performance might cause any investor to lose heart, since Continental's stock price has swooned from 26⅝ in early 1989 to around 13 today (chart, page 40). But it does nothing to counter the impression that the FDIC is one lousy market timer. The agency, which says it's likely to lose $2 billion this year, denies that the sale is timed to cover any cash shortfall. "Whatever action we take is predicated on getting as much as we can for the stock," insists a spokesman. The agency backed off from a sale last fall, when the stock went for about 20, and rejected a June bid from an investor group that included Theobald. The price then: 15.

Recently, the FDIC dangled its stake in front of First Chicago Chairman Barry Sullivan, who did not bite. Other Chicago investors, including the wealthy Crown and Pritzker families, are said to be considering offers. Theobald believes t stock will be sold to the public.

In nixing earlier bids, the FDIC app ently thought the price would climb. one at the agency will confirm it, b evidently that thinking has chang Continental may be happy to end its u easy partnership with the feds. But f the FDIC, it's a case of getting out wh the getting's not very good.

By David Greising in Chicago, with Le J. Nathans in New York

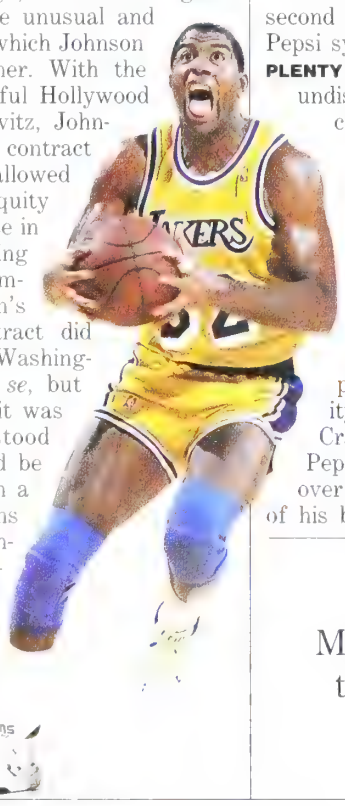
SPORTS BUSINESS

MAGIC JOHNSON HITS A THREE-POINTER AT THE BUZZER

His piece of Pepsi's action may spur other jocks to seek similar deals

Who could blame Pepsi for trumpeting its newest franchisees? The company's partners in the venture could hardly be more lustrous: the highly respected publisher of *Black Enterprise* magazine, Earl G. Graves, and basketball superstar Earvin (Magic) Johnson. Moreover, the franchise covers Washington, D. C., where the thirsty clientele ranges right up to the White House. All of which is why Pepsi-Cola Co. flew Magic to Washington for, among other splashy events, a 20-minute visit with President Bush.

Curiously, though, the soft-drink giant didn't ballyhoo the unusual and lucrative deal by which Johnson becomes its partner. With the help of his powerful Hollywood agent, Michael Ovitz, Johnson negotiated a contract with Pepsi that allowed him to buy an equity stake in a franchise in return for appearing in television commercials. Johnson's endorsement contract did not include the Washington business *per se*, but Ovitz says that "it was implicitly understood that efforts would be made" to find him a franchise. Explains Johnson: "I was interested in a business deal, not just an endorsement."



The agreement has set tongues to wagging even in a business where shoot-the-moon contracts are commonplace. Johnson will get an estimated $4.2 million over three years for his endorsements: So far, he has appeared in commercials for Diet Pepsi and Mandarin Orange Slice. "It's an unusual deal," says Peter Johnson, an agent whose clients include quarterback Joe Montana. "Not only are the dollar amounts extremely significant, but the distributorship is even more important." The package is all the more remarkable because Pepsi in the past four years has aggressively bought back its bottling operations: Johnson and Graves are only the second new franchisees to enter the Pepsi system in 20 years.

PLENTY OF POP. Both investors put up an undisclosed amount of cash to become controlling partners in the franchise, which analysts estimate to be worth about $60 million. The business ships around 4 million cases a year in the District of Columbia and a small part of Maryland. Pepsi retains an undisclosed stake. The company maintains it made the offer to Johnson as part of an effort to boost minority ownership of its operations. Craig E. Weatherup, president of Pepsi-Cola, says he chose Johnson over other top black athletes because of his business acumen and reputation.

> 'If you think Magic Johnson is going to run that business, I'll eat your hat'

Although he says he discussed endors ments with Johnson and Ovitz while was making the franchise proposal, insists the two deals were kept stric separate. Says Weatherup: "I told E vin, 'We'd like to do the sponsors thing, but if it doesn't work out, we s want to proceed with the minority ow ership proposal.' "

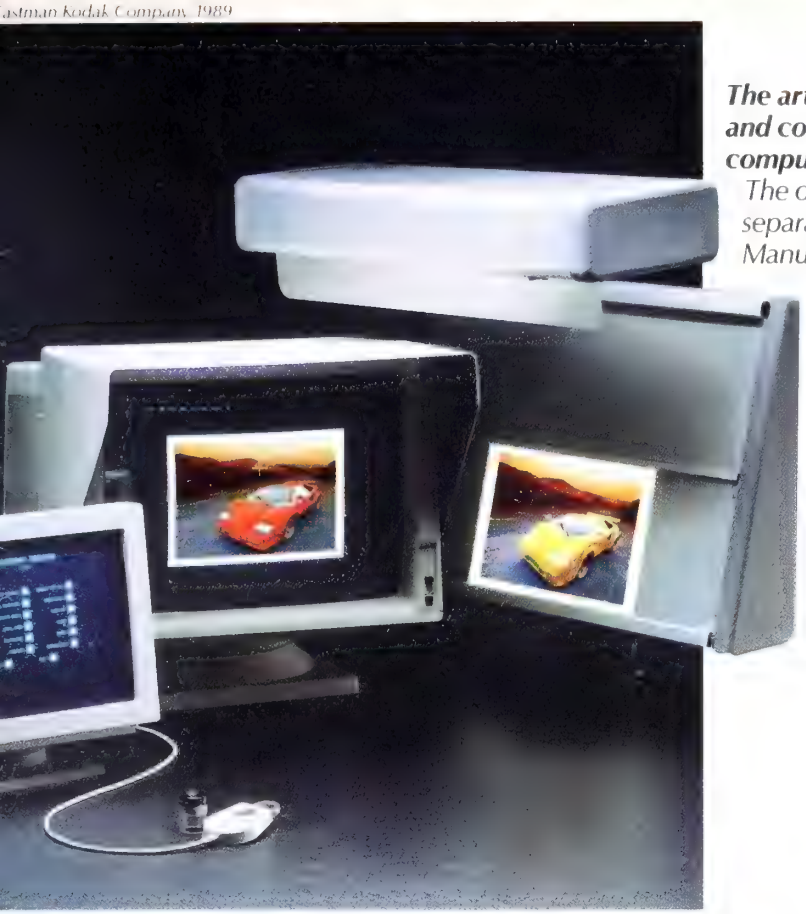
But Ovitz, who as chairman of C ative Artists Agency Inc. has become Tinseltown legend by putting togeth package deals for such clients as Dus Hoffman and Tom Cruise, claims he d veloped the investment proposal as p of a strategy to give Johnson, 30, son thing to do after he retires from t hardwood. He has four years left in a million contract with the Los Ange Lakers. Some soft-drink executives qu tion what Johnson brings to the pa apart from his marketing cachet: "If y think Magic Johnson is going to run th business, I'll eat your hat," says Bru J. Llewellyn, chairman of Philadelph Coca-Cola Bottling Co. Llewellyn's pa ner is another basketball great, Jul Erving, who helps promote the bott by playing golf with key clients.

STAR WARS. Llewellyn says Pepsi played down Johnson's deal because would create a precedent." Indeed, w the already keen competition for b name endorsers and a marketing stra gy based mainly on celebrities, Pe could be upping the ante in the biddi war among advertisers to sign ma stars. The company was stung last y when it paid $5 million to use Mado in an ad campaign that it had to ya after protests from angry viewers w confused it with the singer's suggest music videos. Still, that debacle did stop Pepsi from signing a multimilli dollar deal with actor Michael J. Fox stop sneaker manufacturer L. A. G Inc. from signing an estimated $10 r lion pact with Michael Jackson.

With advertisers this star-struck, may not be long before athletes cons erably less stellar than Johnson st clamoring for a piece of the action.

By Mark Landler in New York, w Kathleen Kerwin in Los Angeles and P Hong in Washington

astman Kodak Company, 1989



The arts of page makeup, color separating and color correcting are all becoming part of computer science. Once again, Kodak leads.

The once complex process of producing color separations for printing is now incredibly simple. Manual cut-and-paste operations can now be accomplished on the screen of a computer. And, a state-of-the-art color system permits image manipulation—a truly magical ability to enhance photographs and artwork—with equal ease.

We are more than photographs. We are the world's premier graphics imaging company. ***For more details on enhancing the graphic arts tradition, call 1 800 445-6325, Ext. 960F.***

ENHANCE IT WITH KODAK

The new vision of Kodak

In Business This Week

EDITED BY HARRIS COLLINGWOOD

A GOLDEN STATE FOR LONG-LINES GIANTS

▶ California's trend-setting Public Utilities Commission is embarking on its most far-reaching deregulation of telephone service yet. A proposal unveiled on July 27 would let the likes of AT&T and MCI compete for regional toll service with local carriers such as GTE California and Pacific Bell. Because they subsidize basic local service, regional toll calls are currently priced higher than some long-distance calls.

But the big long-distance players will have to wait a bit to enter the fray. Before throwing regional toll calling open to competition, the state regulators plan to cut the service's rates so they're closer to the cost of providing them. PacTel and GTE say they welcome the change, since the proposal would allow them to offer discounts to large-volume customers. The California agency's proposal could be a model for other states.

FORD AND FIAT FIND A GREEN PASTURE

▶ Ford and Fiat are joining forces down on the farm. Fiat is buying 80% of Ford New Holland, the carmaker's $2.8 billion farm-equipment unit, and combining it with farm- and industrial-equipment maker FiatGeotech, which had sales of $2.3 billion last year. Fiat has an option to buy out Ford's remaining 20% stake within four years. This could be just the first of a series of Fiat deals in Detroit. The Italian carmaker is also talking with Ford about a possible heavy-truck tie-up.

FUJITSU: NOW NO. 2 IN COMPUTERS

▶ The computer industry was prepared for the news that Fujitsu would take a stake in Britain's International Computers. The stunner was the July 30 announcement that Japan's top computer maker would buy fully 80% of of the British company from its parent, STC, for about $1.3 billion. The virtual takeover catapults Fujitsu past Digital Equipment to No. 2 in global computer sales behind IBM.

The linkup positions Fujitsu well for post-1992 Europe. The British company's strength in so-called open systems also should help Fujitsu hedge its reliance on an IBM-compatible product line. Fujitsu says it intends to retain International Computer's current management.

CASH MAHLMANN STEPS DOWN—TWICE

▶ With the troubles at commodity broker Stotler Group rapidly becoming a full-blown scandal, Karsten "Cash" Mahlmann on Aug. 1 resigned the chairmanships of both Stotler and the Chicago Board of Trade, the premier U. S. commodities exchange. Just hours after resigning from Stotler and vowing to remain at the helm of the exchange, Mahlmann quit his post at a special board meeting of the CBOT. Exchange Vice-Chairman William O'Connor will finish out Mahlmann's term, which ends in January, 1991.

The resignations came a day after the Commodity Futures Trading Commission charged in federal court that Stotler Group improperly borrowed $5.6 million in investor funds from two investment pools it sponsored.

MONTH OF THE LIVING DRECK

It's a couch potato's dream: 418 films in a single month, courtesy of The Movie Channel. Throughout August, the 24-hour pay-TV service will screen 744 hours' worth of movies without repeating a single one. Called The Movie Channel Challenge, the cinematic marathon gives customers a chance to turn on their sets, tune in TMC, and drop out of touch with the world.

To its credit, TMC will show a few gems, such as *Au Rev* *Les Enfants* and *North By Northwest*. But most of the sch ule is stuff you missed the first time without regret, turke such as *American Ninja 3* and *Beverly Hills Vamp*.

As if August weren't torpid enough, TMC is billing its f binge as "418 reasons to call in sick, break your date, or j hang out at home." But then again, with such choice offerin as *Surf Nazis Must Die* and *Gnaw Food of the Gods 2*, ev the most diehard sofa spud might give the boob tube a re

REEBOK'S BOSS STUBS HIS COMPENSATION

▶ Paul Fireman is taking a pay cut. For five years, Reebok International's chief executive has commanded $350,000 in salary, plus 5% of the company's pretax profits above $20 million. That deal was inked in 1986, shortly after Reebok went public. Since then, Reebok has made a lot of money, and so has Fireman: His pay comes to $5 million since 1986, not cou ing the $15 million he'll pro bly take home this year.

Starting Jan. 1, thoug he'll be just another worki stiff—sort of. A new five-ye deal will pay him $1 millio year, plus stock options an bonus of no more than $1 m lion based on his fulfillme of profit goals. Firem wouldn't comment on the n package. Reebok says the tion wasn't punitive.

"'OPEN AN S&L,' I SAID. 'IT'S THE PERFECT CRIME!' BUT, NOOOO! EINSTEIN HERE HAS TO GO AND ROB A CONVENIENCE STORE!"

WHO'S THAT HUMMIN POSNER ON MY MIND

▶ Miami Beach hotelier Le ard Pelullo is free again make Victor Posner's life m erable. On July 31, a Cinc nati jury acquitted Pelullo charges that he paid $145,000 kickback to obtai loan from an Ohio thrift. T jury deliberated less than t hours before finding him guilty on all five counts.

Pelullo says he can now cus on talks with Posne DWG holding company. Pel claims that Posner still ov him consulting fees and blocked a proposed settlem between DWG and New Y lawyer Andrew Heine on takeover bid from which lullo withdrew a year ago.

astman Kodak Company, 1989

Because they combine high quality and ease of use, Kodak printing plates satisfy the most demanding printers and customers.
Whether the printing press is a small sheet-fed model or a web-fed monster, there is a Kodak printing plate to fit. Kodak plates offer wide exposure and processing latitude and consistent performance on press. That means less downtime, fewer makeovers, longer runs...all the things that increase productivity and make printers' lives easier and more profitable.

We are more than photographs. We are the world's premier graphics imaging company.
For more details on enhancing the graphic arts tradition, call 1 800 445-6325, Ext. 960H.

PRINT IT WITH KODAK

The new vision of Kodak

IT'S NOT SCIENCE FICTION ANYMORE.

All of a sudden, it's science fact. Motorola has added enhanced features to its numeric display pager and combined it with a digital watch to create the personal communications tool for the 21st century. We proudly introduce the Motorola Wrist Watch Pager.

Not only is it a first of its kind, but it's among the smallest and lightest (2.1 ounces) pagers of any kind.

And, of course, this new wrist pager offers the same quality you've expected from Motorola pagers for over three decades.

After all, we manufacture more pagers than anyone else in the world. And we manufacture them for a wide variety of lifestyles. No matter what style your business life assumes, there's undoubtedly a model that meets your needs.

But Motorola isn't stopping here. Because we realize that the solutions to the communications needs of today lie in the technologies of tomorrow.

MOTOROLA

THE NEW MOTOROLA WRIST WATCH PAGER

and Motorola are registered trademarks of Motorola, Inc. ©1990 Motorola, Inc.
Paging Division: 1500 N.W. 22nd Avenue, Boynton Beach, FL 33426. Phone: 407-364-3701

EDITED BY STEPHEN H. WILDSTROM

HE MILD-MANNERED ARM-TWISTER HO HAS THE GOP YELPING

Vhat is it about Senate Majority Leader George J. Mitchell that makes Republicans crazy? Why did the House GOP single out the Maine Democrat for nal attack in a resolution condemning tax increases? e answer may be simple. After leading the Senate for 18 ns, Mitchell has emerged as the most formidable opposi- strategist and spokesman the Republicans seen in a very long time.

st of Mitchell's first year on the job was as as the Maine coast. His mild demeanor and of a clear agenda had Democrats wondering effective the former federal judge would be. en came capital gains. Although a majority e Senate was ready to back President Bush's sed cut in taxes on gains, Mitchell single- edly prevented a vote last year. That earned he enduring enmity of the White House, but lished Mitchell as a rival to be reckoned This year, he's insisting that a capital-gains e paired with a rate increase for the wealthi- xpayers. "Mitchell is hitting one of the Re- ans' sore spots, and they don't like it one says Democratic pollster Geoffrey Garin.

ENSUS-BUILDING. Mitchell's record this year ed that his capital-gains fight was no flash e pan. He started the session by taking up air legislation as the first order of business urprised critics by ramming through a major romise with the Administration in what -by dilatory Senate standards—breakneck . Other Senate accomplishments include pas- of farm, housing, civil-rights, and crime legislation. e record has some political observers comparing Mitchell, r prematurely, to a legendary majority leader, Lyndon B. on. Unlike Johnson, Mitchell works by cajolery and con- s-building, not by bullying his colleagues. But he has n to be a formidable partisan warrior. "He's a lot tough- an he looks," says David Keene of the American Conservative Union. "He has molded Senate Democrats into a more cohesive unit, and that [infuriates] Republicans."

GEORGE MITCHELL

Keene is overstating the case a bit. In fact, there's no agreement among the 55 Democratic senators over the budget, and the Senate has been unable even to pass a fiscal 1991 budget resolution. And Mitchell has other problems. His no-nonsense leadership style, including forcing attendance at late-night sessions, has begun to grate on some members. He has been unable to muster a two-thirds majority to override any of President Bush's 13 vetoes. And his insistence on tough oil-spill-liability legislation has led some fuel-oil shippers to threaten a boycott of Maine ports.

KEEN ANTENNAE. Mitchell describes his own record as good, "but there's room for improvement." His main goals for the remainder of this session: passage of campaign-finance reform and a budget deal. Campaign legislation seems headed for Senate passage, but agreement with the House may prove difficult. And the budget talks are very much up in the air.

Mitchell's biggest strength may be keen political antennae. "George Mitchell was a Washington insider from the day he was born," says GOP strategist Tom Korologos. Mitchell picks his fights carefully, challenging Bush where he's vulnerable, such as on taxes for the rich and timid reaction to change in Eastern Europe. "He emanates steadiness and credibility, and it's hard for Republicans to cast him as partisan," says Garin.

Mitchell's emergence as the Democrats' brightest star has some talking him up as the challenger to Bush in 1992. "He has done a great job. He could be the nominee," says House Ways & Means Committee Chairman Dan Rostenkowski (D-Ill.). Mitchell denies any designs on the White House. But given the lack of prominent Democrats interested in a '92 run, he could well emerge as the early front-runner.

By Paula Dwyer, with Douglas Harbrecht

TAL WRAPUP

IPAIGN FINANCE

ne backlash against foreign pur- chase of U. S. corporations may hit nbers of Congress squarely in their etbooks. The Senate voted over- lmingly on July 31 to prohibit for- -owned U. S. companies from run- political-action committees. Senate nce Committee Chairman Lloyd tsen (D-Tex.), sponsor of the ndment to the campaign-finance-re- n bill, says that while "foreigners be buying landmark American dings and major companies, we ld not let them buy our elections." ne provision would halt the plans of e Japanese companies to set up PACs through their U. S. units. But it would also end the political activities of many familiar foreign-owned U. S. companies, including Marine Midland Bank, Pillsbury, and First Boston.

VETOES

Junk faxes may be an annoyance, but the White House doesn't think they call for new federal regulation. Edward J. Markey (D-Mass.), chairman of a House telecommunications subcommittee, is pushing a bill to restrict unwanted fax transmissions. White House officials say President Bush is prepared to veto the legislation because it unnecessarily duplicates existing protections.

BANKING

The Treasury Dept. may lose much of its power to regulate banks if the Senate Banking Committee has its way. Last year's decision to put the new Office of Thrift Supervision under the Treasury was seen as a first step toward consolidation of bank regulation. But now, the Senate panel is thinking of reversing the decision. And it may go further, seeking to convert Treasury's Office of the Comptroller of the Currency, which supervises national banks, into an independent agency. Senators feel that bank regulators would be less susceptible to political influence if they were independent.

BEYOND RED SQUARE, A GRASS-ROOTS *PERESTROIKA*

Fed up with empty coffers and Kremlin foot-dragging, local leaders are pushing capitalism at home

In Stalin's time, local Communist Party chiefs trembled when they received a call on the legendary red phone from the bosses back in Moscow. With good reason: Bucking a Kremlin directive was unthinkable, meriting a lengthy term in a labor camp or even a bullet in the head.

Today, that centralism is fast disintegrating. In cities and regions across the Soviet Union, local leaders are engaged in a grass-roots struggle for economic independence. Fed up with unrelenting shortages and five years of stop-and-go reforms under President Mikhail Gorbachev's *perestroika*, they are grabbing power on a scale inconceivable only a year ago. Take Sakhalin Island at the eastern end of the Russian republic, 4,000 miles from the Kremlin walls. There, Valentin Fyodorov, the island's new, popularly elected governor, is moving to install capitalism as the official ideology and is claiming control of Sakhalin's valuable exports of oil, timber, and fish. Back in Leningrad, Anatoly Sobchak, a progressive lawyer and the new city council chairman, vows to sever the economic links of the nation's second city to Moscow. Says his local ally, economist Pyotr Filipov: "If the center doesn't move fast enough, we have to try to save ourselves."

From the early days of *perestroika*, Gorbachev warned Soviet localities to expect financial handouts from Moscow to end and assume responsibility for themselves. Now, radicals who have been elected to dozens of key local positions in Moscow, Leningrad, and the Siberian city of Sverdlovsk, among others, are taking him at his word. Of the nation's 15 republics, reformers now rule in the Baltics, Moldavia, and even in Russia itself, where populist Boris N. Yeltsin has become president and a challenge to Gorbachev. Eight republics have already issued declarations of sovereignty.

The crucial issue now is whether the Soviet economy can be saved by experimental pockets of free-market practice that go far beyond what Gorbachev has proposed so far.

To gauge the strength of the reform movement, BUSINESS WEEK Moscow bureau Chief Rose Brady logged 10,000 miles traveling across the Soviet Union, interviewing local officials, factory managers, and everyday citizens. She reports on how things are going in three remarkably different locales: cosmopolitan Leningrad in the northwest of Russia, the southern frontier republic of Kazakhstan, and the Far Eastern island of Sakhalin.

ENINGRAD

Peter the Great's westward-looking ...case city with 5 million people is second ... to Moscow • Economy based on ...m, electronics, and defense • Sets trends ...e arts, literature, and popular culture

...in would be amazed. This northern ...ty of grand monuments and mag...nt cathedrals was the cradle of his ...ution. For nearly seven decades, it ...orne his name to immortalize his ...on, the Communist Party.

...w, his revolution may be undone. ...the first time since 1917, Lenin...s leaders are noncommunists. In... of building socialism, they seem ...on dismantling it. They want all ...nterprises to be free from Moscow ...tries—and some of them sold to ...e interests. Foreign banks and bro...e firms are being invited to bring ...the city's pre-revolution stock ex...ge, which hummed with activity on ...and in the chilly Neva River. Most ...ng of all, they may even evict the ...Communist Party from its head...ers at the Smolny Institute, claim... as city property. From this stunning Russian Classical building, Lenin himself directed the city's first Soviet government.

Spearheading these dramatic moves is City Council Chairman Anatoly Sobchak, a fast-talking 53-year-old lawyer who announced he was leaving the Communist Party after a historic Kremlin meeting in early July. He and Alexander Schelkanov, the former Communist city executive, or mayor, are angling to roll back decades of socialist mismanagement. In short, they plan nothing less than restoring Leningrad to its former greatness as Russia's center for commerce, culture, and art—and thereby renewing the city's historic connection to Western Europe. There is even talk of changing the city's name back to St. Petersburg—the name given it by the westward-looking czar who built it three centuries ago.

ANATOLY SOBCHAK: DRAMATIC MOVES

ROCKING THE PALACE. Sobchak and Schelkanov have Soviet leader Mikhail Gorbachev's *perestroika* policies to thank for their new power. They were elected to office this spring in the first multicandidate local elections in Leningrad in decades, defeating the conservative Communists who had ruled the city for 73 years.

Now, popular excitement, if not chaos, is rocking the 19th century Mariinsky Palace, once the home of Czar Nicholas I's daughter and now city hall. Gray-uniformed militiamen no longer stop the throngs of visitors who hurry up a marble staircase to a chandelier-lit hall to hear raucous debates on city affairs.

There, city deputies consider some of Sobchak's and Schelkanov's most far-out ideas. One is to turn Leningrad into a free economic zone that would have its own tax and credit policies and rules for attracting foreign investors. Such a move would shield the city from Moscow's interference as it tries to make the most of its history, its art, and its proximity to Western Europe at the eastern end of the Baltic Sea. "The only way is to create a new economic system that will gradually push out the old system and put an end to it," says Sobchak, a city native.

Sound like a pipe dream? To look at the city today, one would think so. Despite its downtown blocks of bright-pastel architectural gems designed by 18th century European masters, Leningrad is literally falling apart. Weary commuters crammed into smoky yellow buses are jostled around on roads that are pocked with holes. Central-city buildings are boarded up. Twenty percent of the 5 million Leningraders, many retirees, live on paltry incomes of about $116 a month. In an empty lot outside one central subway station, elderly people create a makeshift market, hawking everything from old buttons to books to

...KHSTAN
...CE-SLEEPY
...C OF FARMERS
...TING ITSELF

SAKHALIN
THE ISLAND'S SUPPLY LINE TO MOSCOW IS BECOMING A TRICKLE

SPARSELY STOCKED SHELVES AT A BABY FOOD STORE IN LENINGRAD: THE CITY IS FALLING APART

used clothes for a few extra kopecks.

Not surprisingly, the radical reformers face opposition. Although the Communist Party no longer dominates the city council, it still wields enormous influence through its remaining cells within the government, the police, and the military. Boris Gidaspov, Communist kingpin of the region, may seem to be a free-market reformer, but many believe he fights significant change behind the scenes. Battles between radicals and old-line Communists are inevitable, says Anatoly O. Peshkovsky, an official of the city Party's economic and social policy unit. Party departments that used to oversee the city's industries, from machine-building to electronics, have been shut down. "There is a certain resentment," says Peshkovsky. And given Leningrad's importance to the Soviet defense industry, a wild card is where the army and the KGB stand on Sobchak's plans. Their silence worries would-be investors, such as Stav Vasev, director of the Uzbek cooperative bakery. He would like to expand his thriving shop, which makes spicy, round Asian bread loaves, but he fears that a military crackdown will end the reform era.

CITY FOR SALE. Meanwhile, the city council is preparing to unveil the foundations for a free market. This fall, reformers will set up a commodities exchange to stimulate trading links at market prices among enterprises and end their dependence on central state agencies. Sobchak also has plans to deal with the city's labor oversaturation in heavy industries such as shipbuilding. He wants to set up a labor exchange to help those laid off in the future find work in a newly privatized service sector.

To expand that sector, the city council is preparing major sales of assets this fall. Food and department stores, catering establishments, and restaurants from tiny corner cafeterias to perhaps such well-appointed eateries as the Troika and the Literary Café—all will go up for sale or lease in a remarkable effort to break the state monopoly on goods and services. Added to these may be some 600 dilapidated downtown buildings that city officials hope foreigners will acquire and transform into shops and apartments. One unlikely but profitable source of revenue could be the $5 billion worth of junk such as raw materials, scrap metals, and used machines from the city's aging factories. Planners hope to find a market for it in foreign companies.

Money generated from such sales will help upgrade services for Leningrad's 750,000 annual tourists and pay for a new phone system. It will also help keep voters happy. Sobchak is considering a plan to issue resident a Western-style credit card that would allow them to buy foreign consumer goods with rubles. Britain's Lloyds Bank PLC is advising on the card. But any scheme to improve the lot of Leningrad's residents still could be undone by black marketeers. The city is famous for its gangster toughs, who steal shipments of everything from French cognac to Italian fashions and sell them at huge profits.

Yet the black market likely will be the least of the problems for Leningrad's new reformers. "We have to find ways to support the trust of the people," says Schelkanov. "I hate to think of the outcome if we fail."

Partly Moslem republic of 6.4 million people entered the Russian empire in the 19th century • Key oil and gas fields • Soviet space program centered here • Large nuclear arsenal

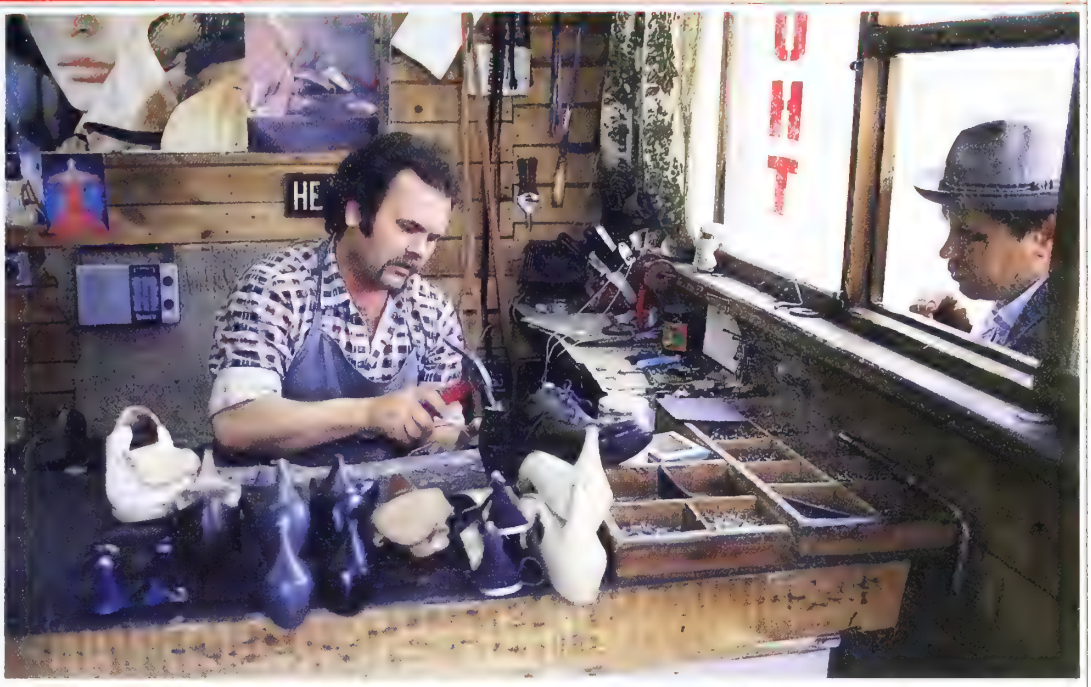
Ripe raspberries and blueberries weigh down the bushes at the lush Gorni Sadovo state farm in the mountains overlooking the Kazakh capital of Alma-Ata. Western European companies have offered to help freeze and export the berries. But farm Director Nusupzhan Nurmanbetov can't accept the proposals, because his farm is controlled by state agricultural authorities in Moscow. "It's not up to me, and Moscow can't decide [what it wants]," he complains.

That catch-22 may soon vanish forever. Once a sleepy republic of docile Muslim shepherds, Kazakhstan is asserting itself. Its leaders, such as its new president, Nursultan A. Nazarbaev, want to sever their ties with Moscow's bureaucrats. Says Nazarbaev: "We want to have a free hand to dispose freely of our minerals and oil."

STEPPE BY STEPPE. Settled by nomadic Mongols centuries ago, Kazakhstan's steppes, deserts, and mountains are rich indeed. Located here is Tenghiz, one of the world's biggest oil-field discoveries of the past 20 years that is double the size of Alaska's Prudhoe Bay. The republic also has vast silver, copper, and zinc deposits, big supplies of coal, and acres of grainfields that provide one-third of the Soviet Union's wheat.

Yet the Kazakhs get little from Moscow for their riches. The government

one-fifth of world
s to Kazakhstan
s resources, resell-
hem at a tidy prof-
gabai Karamanov,
republic's Prime
ter, estimates that
Moscow govern-
earns hard curren-
orth about 1.2 bil-
rubles a year—$2
n at current ex-
ge rates—by ex-
ng Kazakh raw
rials. But Kazakh-
sees almost none
at cash. As a re-
the republic cannot
with its most
ing problems: un-
oyment, mounting
rty, and shortages
using, medical fa-
s, and food.
at is soon to
ge. Nazarbaev, a
oro-smoking met-
gist who is a member of the Com-
st Party Politburo, says that Ka-
stan is pushing for complete
eignty over all its resources at on-
Moscow talks on a new treaty of
oviet Union. He's confident that a
treaty will be ready in three months
will recast the Soviet Union as a
deration and limit Moscow's role to
se, foreign policy, and the electrical
try.

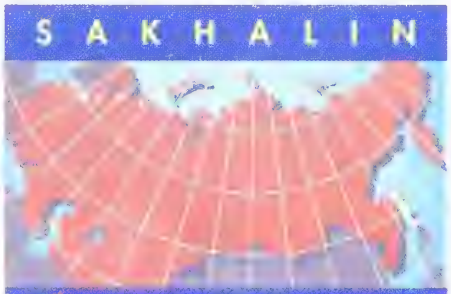


A SHOEMAKER IN KAZAKHSTAN: SOON, THE REPUBLIC WILL SELL KEY PRODUCTS WHERE IT—NOT MOSCOW—WANTS

T LEAP. But Kazakh officials are
imply waiting for a new treaty to
control over the republic's riches.
haven't been shy about pushing it
deals that Moscow is setting up.
rbaev, for example, insisted that
khstan be a co-signatory to a proto-
gned in June that temporarily gives
ron Corp. exclusive rights to the
ive Tenghiz oil field while it under-
a feasibility study on production.
is the first time a republic has
signing such an agreement," says
rbaev. "There was a certain
nt of resistance from the ministries
oscow."
blunt any interference from Mos-
Kazakhstan has set up its own pro-
on company to work with Chevron.
d-July, Nazarbaev flew to Chevron
quarters in California to meet with
Chevron executives. As part of the
the American Trade Consortium, a
of blue-chip U. S. companies in-
ng Chevron, will help Kazakhstan
op several dozen joint ventures.
rbaev also stopped in Washington
eet with U. S. government and con-
ional leaders about such develop-
plans as setting up a joint Kazakh-
American investment bank. Meanwhile, the republic is in joint-venture talks on other projects with British Petroleum, Dow Chemical, and others.

Confident of their strengthening hand, Kazakh leaders are testing the Kremlin in other ways. Starting in January, Kazakhstan is going to keep control of 80% of key products, including metals and oil, and sell them wherever it wants. Currently, they have to be shipped where Moscow directs. The Kazakh Parliament also will consider an emergency move to hold back 5% to 7% of all the raw materials and farm products ordered by Moscow from October to January. The government would then export the goods and use the revenues for consumer spending and welfare programs.

Yet, Kazakhstan is not secession-minded as other republics such as the Baltics. Nor is it as restive as neighboring Central Asian republics such as Uzbekistan or as violent as Armenia and Azerbaijan. Says Nazarbaev: "Kazakhstan is in favor of the integrity of the Soviet Union." Provided the locals get their cut, that is.



First settlers were Slavs arriving by Trans-Siberian RR • Location on Pacific Rim gives it strategic importance • Primitive economy producing oil, timber, fish • Population: 730,000

In his wood-trimmed office in the city of Yuzhno-Sakhalinsk, Valentin Fyodorov has moved the official portrait of Mikhail Gorbachev away from his desk so he doesn't have to look the Soviet leader in the eye. No wonder: The new governor of the island of Sakhalin, a wiry former professor, is plotting a war with the Kremlin, 4,000 miles and 10 time zones away. "When you fight with Moscow, you have to play chess," he says, pacing the floor.

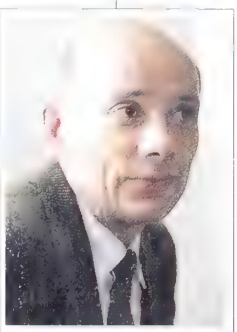
Fyodorov's pawns are Sakhalin's timber, fur pelts, and fish, and his rooks and bishops are its oil reserves and precious metals, such as gold. All these natural resources abound on the narrow, rainy island a spare 35 miles from Japan. Yet for all this wealth, many Yuzhno-Sakhalinsk residents live in shabby, prefabricated apartment blocks that mar the otherwise bucolic landscape of the city. A tenth of the town consists of homemade wooden huts, and the staples of life, such as meat, tea, and sugar, are rationed. "We send 92% of our resources straight to Moscow at low prices. We call that colonial robbery," says Vladimir Zaitsev, a deputy chairman of the new regional council.

Now, Sakhalin is fighting back. Leading the charge is the regional council and its executive committee headed by Fyodorov. A former Moscow economist,

MAKING HAY: A PRIVATE FARM, A FISH PLANT, AND A KOREAN GREENGROCER IN SAKHALIN

he has, since 1985, studied Sakhalin as an ideal site for economic experiment. Then came Gorbachev's move toward democracy and multicandidate elections. Fyodorov, a 50-year-old political neophyte, saw his chance and won the top job in the region. Now, he says, "We are crushing the system of administrative controls; in other words, communism."

STRATEGIC SPOT. That's a dramatic challenge to Moscow. As part of the Russian republic, Sakhalin has long been viewed as strategic because it protects Soviet air and naval approaches to the Pacific. In Yuzhno-Sakhalinsk, soldiers tramp down the streets or dart about in jeeps. The Japanese ruled the southern half of the island for 40 years after defeating the Czarist navy in 1905 and still claim the nearby Kuril Islands that the Soviets seized after World War II.



SAKHALIN REFORMER VALENTIN FYODOROV

In Fyodorov's vision of the capitalist future, Sakhalin will be the Soviet version of a Pacific Rim tiger economy. Resources are plentiful and the island's location is perfect: a short haul from Japan and South Korea and a week's sail from parts of Canada and the U. S. Although the population is small, just 730,000, the people seem more entrepreneurial than other Soviets. Some 40,000 are Koreans who were brought here by the Japanese, and others are hardworking children and grandchildren of Ukrainians, Byelorussians, and Baltic citizens, many of them intellectuals sent by Stalin to island prison camps.

Fyodorov is starting by better utilizing the island's resources. Nearly all of Sakhalin's natural wealth goes to Moscow to be processed for resale. In return, Moscow bureaucrats arrange for up to 80% of the island's supplies of fo and consumer goods. With the Sov Union's creaky transportation networ much goes bad or is stolen on the wa

That will change. Starting this su mer, Sakhalin will begin shutting dov this antiquated trading system. Fir Sakhalinribprom, the island's giant fi combine, will sell 30% of its caviar, cra and fish catch directly to Soviet buye or abroad for hard currency. Sales of t island's local timber, grain, and oil co panies will be similarly rerouted.

THREE Fs. The once-omnipotent loc Communist Party has been powerless block the scheme. Staff at the regio party headquarters has shrunk 4 since the party began phasing out economic management a year ago. A if Moscow's ministries object, the Sakh lin council plans to use a new Soviet la passed in April to resist. The law giv any local council the right to challen Moscow if it interferes with the abili of the local people to make a living. Moscow ministries interfere, we will d miss their representatives," threate Deputy Chairman Zaitsev.

But keeping the wealth is only ha the job. Fyodorov is also launching campaign he calls the "three Fs: ne forms, new farms, and new firms." S khalin needs to create more food, fish, and other processing companies. Fyodorov is seeking foreign investmen and plans on setting up a "Sakha Fund" to spur development.

Some foreign companies already a sniffing around. Joseph Ritchie, a Chic go commodities broker and partner Dialogue, a computer joint venture Moscow, is exploring investments in food processing, and a new commodi exchange. Six Japanese companies ha set up fish-processing joint venture Progress, the island's first joint sto company, has found a Japanese buy for its timber and plans to use the ha currency it earns to buy building mate als and expand.

Hyundai is interested in developi Sakhalin's natural gas reserves to he meet South Korea's growing demar Other Korean companies may join in project to revamp the airport and bu hotels in and around Yuzhno-Sakhalins which is just a 20-minute drive from fis rich lakes tucked between mountai and the Sea of Okhotsk.

Foreign, especially Asian, investme would hasten Sakhalin's transformatio though it could take decades to turn into anything resembling South Kor or Taiwan. But with Moscow's influen fading, Sakhalin, like dozens of oth upstart regions, is moving toward a brant independence undreamed of just year ago.

OR SALE: EVERYTHING BUT HE KREMLIN SINK

Soviet Union is auctioning assets and scrambling for credit

Welcome to the great Soviet salvage sale. Need diamonds? See De Beers Centenary, the -based arm of the world's largest ond miner, which will market $5 bil- f Soviet gems. Gold? From January ne, the Soviets turned over about ons to Western banks as collateral rade credits—more than sold in all of

Platinum or palladium? No prob- A special issue of coins cast in precious metals will be ready this Oil? The wells are pumping 400,000 ls a day less than last year, but bound for Czechoslovakia can easi- diverted.

e Soviet Union needs real money. fast. President Mikhail Gorbachev's mic reforms continue to flounder, he nation's once-pristine credit rat- ontinues to tank. Soviet trading or- ations now are more than $3 billion d in payments to foreign suppliers. top Soviet bankers insist the coun- vill not default, its gross foreign has skyrocketed to at least $60 bil- double what it was three years ago. ervice that debt, the Soviets will face bills of up to $22 billion in 12 months, their creditors say.

Western bankers, who once gave the Kremlin nearly interest-free money, are now slapping the Soviet Bank for Foreign Economic Affairs with interest rates far higher than those charged to Mexico, Chile, or Hungary—and several major European and American banks have withdrawn deposits and credit lines from Soviet correspondent banks in the West. Sighs Iouri Poletaev, the Soviet bank's deputy chairman: "Practically, we have been living on our own for the last six months."

Still, the Soviets are actively seeking trade credits. They are quickly using up the $3 billion loan West Germany gave them in early July, and they are asking for $2 billion from Washington's Commodity Credit Corp. to finance U.S. grain purchases.

MORE WITHDRAWALS. Even the nation's two best-known rivals, Soviet President Gorbachev and Russian Republic President Boris N. Yeltsin, are bowing to the financial calamity. In late July, they agreed to work together on a plan to bring a market economy to the country in about two years. Gorbachev wants to allow private Soviet businessmen to hire Soviet workers directly and have the state sell up to 400 enterprises next year.

To deal with the foreign money crunch, the Soviets have set up formal agreements to sell diamonds through De Beers, the first such arrangement since the early 1960s. Moscow bankers say the government has also used up about one-third of the nation's $15 billion in tightly controlled foreign currency reserves held in Western banks.

In late July, the Soviet government allowed its citizens to use foreign currency in stores without the threat of imprisonment—an attempt, Moscow officials say, to coax into state coffers an estimated $1.3 billion in hard currency kept in factory bank accounts or hidden in mattresses. But the state's move only underscores the near-worthlessness of the ruble, which fetched 4¢ at a July 22 hard-currency auction in Moscow, against an official rate of $1.65. Now, the government says there is a plan to officially lower the ruble's value, probably by autumn.

Money wasn't always so tight. In the early 1980s, when oil hit about $40 a barrel, the world's biggest oil producer was awash in foreign currency. Crude prices then dropped off, and currency got tighter. Last year, a series of events set off a dramatic plunge in cash flow.

First, as part of Gorbachev's reforms, the state monopoly on trade ended, and factories and farms were given the right to purchase foreign supplies directly. But many placed orders without having

enough foreign exchange to pay the bills. Meanwhile, the nation was hit with a series of strikes, including a nationwide job action by coal miners last summer. To win labor peace, Gorbachev spent heavily in the West, buying consumer goods. According to PlanEcon Inc., a Washington consulting firm, consumer-goods imports rose 113% last year, to an estimated $5 billion, in large part to satisfy worker demands.

While the Soviet government was shopping abroad, its oil industry, which brings in 60% of all hard currency, was hitting big bumps. Leonid Abalkin, one of Gorbachev's top economic advisers, estimates that this year it will produce at least 400,000 fewer barrels a day than last year, cutting Soviet production from about 12 million barrels a day to 11.6 million. One reason for the oil slump is that the Soviets made poor investment decisions and put money into oil fields that produced badly. Pipeline mishaps, strikes, and growing refinery obsolescence contributed to the exports drop and currency shortages.

FERTILE FIELDS. The only good news seems to be that the grain harvest could be a record, thanks mostly to favorable weather. But the Soviets are afraid much of the harvest will rot in the fields if combines and trucks don't get enough fuel, so the Kremlin is diverting to the farms about 51 million barrels, some of which had been earmarked for Eastern Europe. Meanwhile, some managers of state and collective farms are demanding payment in goods and hard currency for the grain—arguing that if it weren't for them, Moscow would be spending precious dollars for Western wheat.

Soviets argue that the cash squeeze will be over by yearend, when the Eastern Europeans start paying their bills in hard currency. PlanEcon analyst Tomasz Telma suggests that the $4 billion trade deficit with Eastern Europe could even be a $15 billion surplus by 1992 if these countries do not cut back on Soviet oil purchases. "It's a temporary crunch," agrees Ed A. Hewett, a Soviet expert at Washington's Brookings Institution.

But the Kremlin may not be fully in control of its cash anymore. The Baltic states have begun to claim control of parts of the central banking system, and Estonia intends to set up its own currency by yearend. If such behavior spreads, Western bankers say Moscow will lose the ability to promise prompt payment, and lenders will have to weigh the ability of each of the 15 Soviet republics to pay—a monumental task. For a nation that was a blue-chip credit just six years ago, it's a startling turn of events.

By Rose Brady in Moscow and Peter Galuszka in New York, with Amy Borrus in Washington and Richard A. Melcher in London

HOW FAR CAN EASTERN EUROPE TRAVEL WITHOUT SOVIET OIL?

Sweaty motorists in Eastern Europe wryly call it "Brezhnev's Revenge." For thousands, it was their first summer on an open road free of barbed wire and border checkpoints. Suddenly, the Soviet Union slashed oil deliveries for July by as much as 60%, leaving vacationers stuck in hour-long lines at gas stations.

The cutbacks deal Eastern Europe a double whammy. Already, gas prices are up 50%, and heating-oil costs are expected to balloon this fall. This price shock is hitting at a time when the world oil price is already rising. For years, as members of the Council for Mutual Economic Assistance (CMEA), the Eastern states paid about one-third to one-half of the world price for their oil, and they did it through barter, saving precious hard currency for Western imports. Now out in the cold are Czechoslovakia and Hungary, which depend almost entirely on Soviet oil delivered through pipelines with quaint names like *Druzhba*, the Russian word for friendship.

SAMOTLOR FIELD: NO END IN SIGHT FOR CUTBACKS

'UNPOPULAR.' The Eastern nations were to switch from barter to hard-currency sales in January. But early this summer, Moscow stunned its captive buyers by announcing the oil cutbacks. "We knew this would be an unpopular move, but we need the oil f ourselves," says Leonid Abalkin, a S viet Deputy Prime Minister and t economic adviser. Some Western an lysts see another motive, since Sovi oil demand should be falling in a rece sion. "They are selling oil to the We because they need to raise as mu cash as possible," says Tomasz Telm a consultant at PlanEcon Inc., a Was ington consulting firm. Now, Prague looking frantically for $140 million needs to buy more than 7 million ba rels of crude from Iran, Iraq, Kuwait by yearend. It expects pay $560 million for oil this ye and next. Hungary, whose p capita hard-currency debt is ready the highest in Eastern E rope, is being saddled with an ad ed bill of $60 million for importin about 3.5 million barrels from th West this year. In February, Hu gary bought a large tanker loa of Iraqi crude in a deal that ca celed a $16.5 million Iraqi deb But the deal left Budapest payin more than the world spot price.

The Soviet cutoffs are no picn for Poland, either, where delive ies will fall by 20%. The Pole could buy gasoline and heating o on the Rotterdam market, b costs are prohibitive. Poland face a $41 billion foreign debt and a inflation rate of more than 1,000% So it may have to trade debt fo oil with Iraq—or tighten its be further. Bulgaria, whose delive ies of Soviet oil will drop by 16% doesn't even have those option Its economy is weak, and it ha stopped interest payments on a most $10 billion in foreign debt. Bu garia may have to turn to Iran, its ke Middle East trading partner, to conver some of its debt into oil.

Still, some analysts believe th abrupt Soviet cutoffs will have a pos tive effect in Eastern Europe. The will quicken changes in trade ties an force fuel-guzzling factories to sav energy. Even more important, say Christian Meyer, an economist at th Institute for East European Economie in Cologne, "Moscow's move will cre ate the pressure these countries hav needed to start moving away from be ing so dependent on the Soviet Union. Maybe. But who's going to tell that t vacationing East European drivers?

By Igor Reichlin in Bonn with Am Borrus in Washington

EDITED BY STANLEY REED

AN SOUTHEAST ASIA HANG TOGETHER ITHOUT THE COLD WAR?

Washington's recent decision to open talks with its old adversary, Vietnam, drew some surprisingly bitter criticism in Southeast Asia. The big U. S. policy shift onted America's allies in the region with an uncomfort- fact of life. Just as the end of the cold war is forcing be into a political realignment, so the lack of Vietnam's munist threat is depriving these booming Southeast Asian ries of the framework that has held them together. Their inspired consensus masked simmering territorial, reli-, and commercial rivalries that could now sh in a vacuum left by the withdrawal of ower influence.

ations in the region are more fluid than y time since the founding in 1967 of the ciation of South East Asian Nations N). The group was set up with U. S. sup- to prevent its members—Singapore, Ma-, Indonesia, Thailand, Brunei, and the pines—from collapsing like dominoes to unist subversion. Now, some local ob- rs wonder whether ASEAN, which never ached NATO in effectiveness, is still need- lready, some of these nations, including pore, which harshly criticized the U. S. h, are joining Japan, Taiwan, and Hong in expanding business with investment- ry Vietnam. "In the next five years, the map could change," says Mohammad an Indonesian Chamber of Commerce mist.

SINGAPORE: LOSING STATUS?

RY. Most delegates attending the July 23-27 ASEAN meet- Jakarta say that Southeast Asia must cooperate more mically or risk being left out as Europe and North Amer- rm trade blocs and Japan sews up much of Asia. But is no consensus on the form of a new grouping. They are of the Pacific Rim economic pact, which Secretary of James A. Baker III was promoting at the ASEAN meet- ecause it will be dominated by the U. S. and Japan.

On economic issues, the ASEAN members tend to view each other not as allies but as competitors. Intense rivalry, for instance, exists between Singapore, which aspires to provide the brains and capital to develop its neighbors, and Thailand, which wants to head up a "greater Indochina" that might eventually encompass Vietnam, Cambodia, Burma, and Laos. Such rival goals have up to now thwarted attempts by the ASEAN countries to reach common economic policies.

Lack of a common economic front may sentence these countries to withering head-to-head competition. Vietnam, with 63 million cheap laborers, could soon scrap a lot of socialist shackles and further intensify the competition. Such rivalry may in turn heat up long-standing territorial and ethnic disputes such as the skirmishes between Vietnam and China over the Spratly Islands and the latent enmity between ethnic-Chinese-dominated Singapore and its Moslem neighbors, Indonesia and Malaysia.

SUPERPOWER VACUUM. As the U. S. scales back its presence and the Soviet Union cuts back its commitment to Vietnam, Southeast Asian leaders fear their own disputes could lead to a regional arms race, or worse, that Japan, China, or India—all with powerful navies—could seek to fill part of the superpower vacuum. The shrillest warnings of such dangers are coming from vocally anticommunist Singapore, which fears losing strategic status.

So these countries need to forge new security and economic arrangements, through ASEAN or a new grouping, to ensure that their 300 million people continue to enjoy their remarkable burst of prosperity. The Southeast Asians' blowing off steam at the U. S. is a symptom of how desperate they are for direction, and it's likely to remain a U. S. reponsibility to help them find their way.

By Dinah Lee in Hong Kong, Pete Engardio in Jakarta, Indonesia, and Bill Javetski in Washington

AL WRAPUP

AN

merican construction companies seem likely to lose out on the e job of outfitting Japan's $6.6 bil- Kansai Airport (KIAC)—if a recent rd is any indication. The KIAC au- ities turned down a bid by Pitts- gh-based AEG Westinghouse Trans- ation Systems Inc. on a $50 million ople mover" subway project in fa- of a Japanese group led by Niigata ineering Co. with little experience irport transportation. By contrast, Westinghouse Transportation has plied 14 of the 18 systems currently operation or under construction ldwide. American executives specu- late that the winning bid, which was not disclosed, was unrealistically low.

Failure to award some of the contracts to be handed out in the coming weeks to U. S. companies could rekindle trade frictions with the U. S. because KIAC was to be the centerpiece of a Japanese effort to ensure that U. S. construction companies were treated fairly.

EUROPE

European airlines are pressuring their governments to make international flights within the Continent as painless as going from state to state in the U. S. The sweeping changes are necessary, they say, to ease growing airport congestion. Even before the summer's crunch, the number of European fliers was up 14%, to 32 million, and millions of those passengers had to go through two or more passport controls just to change airlines. Such transfers average 20% to 50% of the total traffic, the airlines say.

The Benelux countries, Britain, and France plan to do away with passport controls but not customs baggage checks by 1993, as a prelude to similar measures to be put into effect later by the European Community. The airlines say these are half measures that will do little to ease long lines. They want anyone entering an EC country to go through one checkpoint, and that's it.

Before It Saw The Light It Saw The Light Of Cou

It's called a light-fade test. For hours on end, various surfaces and materials of the LS 400 were blasted as if by the sun.

Why? Because contrary to old cliché, there is no such thing "timeless beauty." In fact, beaut very much a factor of time.

'Day, s Days.

The engineers at Lexus know hat is why an entire task force eated to investigate ways of ng age and maintaining the value of your investment.

The result is a luxury sedan whose luxury was fashioned with one eye to the future as well as the present.

The optional handworked leather on the seats and trim is designed to resist bleaching by the sun. The burnished California Walnut on the doors and center console is designed to resist fading and cracking. And the exterior finish incorporating up to 42 steps is designed to maintain its rich gloss and luster.

In all, 96 items were studied as part of our anti-aging program. When a surface proved too sensitive to sunlight or the oils from human skin, the offending material was reformulated, again and again if necessary.

So see the dealer nearest you to discover what sets the LS 400 apart: Any car can be new today.

We want to be new tomorrow.

LEXUS

The Relentless Pursuit Of Perfection.

Lexus, A Division Of Toyota Motor Sales, U.S.A., Inc. Lexus reminds you to wear seat belts and obey all speed laws. For more information, call 800-872-5398 (800-USA-LEXUS).

EDITED BY ROBERT MIMS

STUCK IN THE SLOW LAN

TAKE LAST QUARTER'S SALES SLUMP, ADD RISING COSTS, AND SECOND-HALF PR

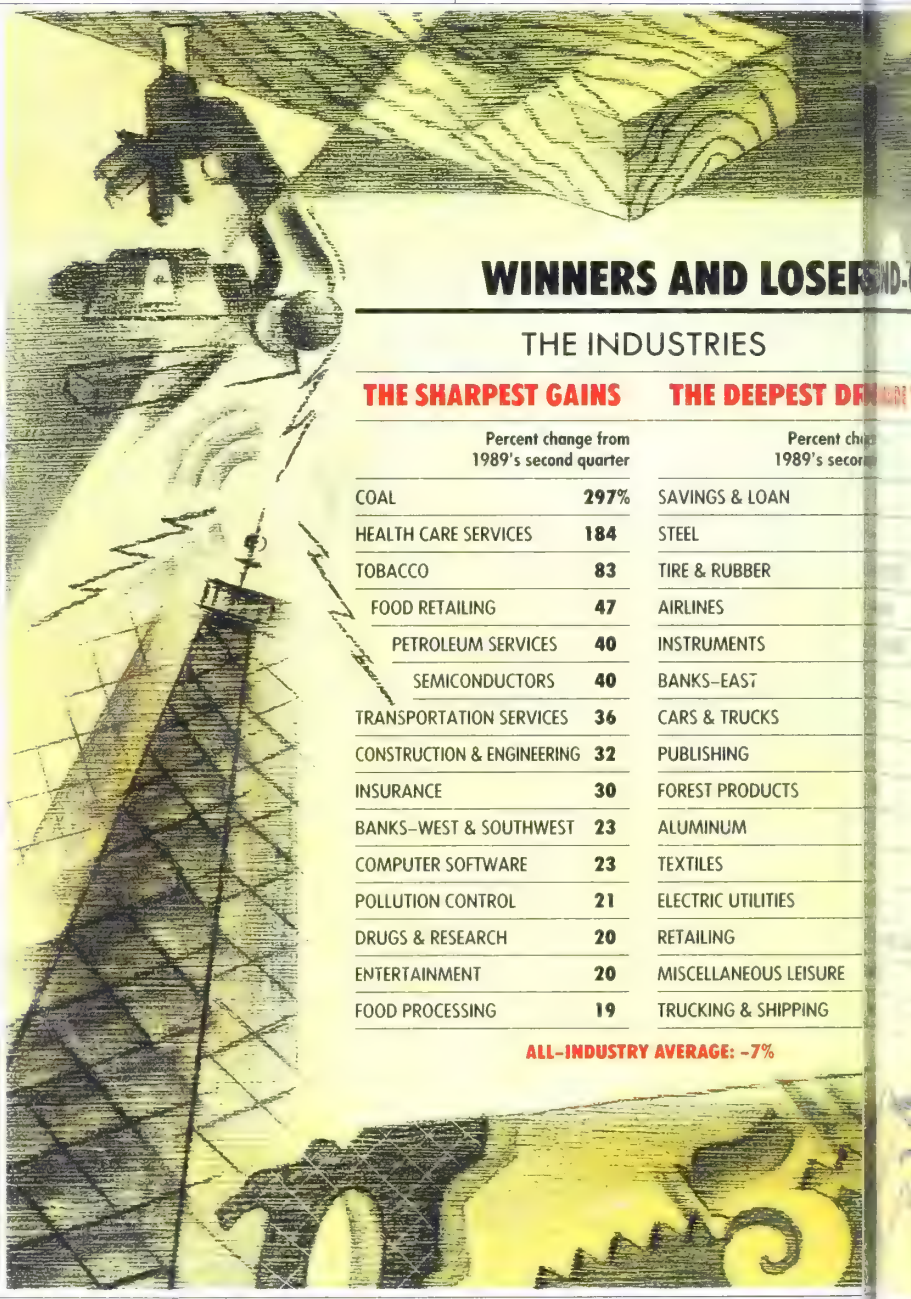
For nearly a year, companies have been struggling against rising wage costs while intense competition has kept a lid on prices. Now, they have something else to worry about: weaker demand. For the 900 companies in BUSINESS WEEK's Corporate Scoreboard, second-quarter sales rose just 5% above a year earlier. That's the lowest since the first quarter of 1987. The slowdown in sales growth wiped out any enthusiasm about the quarter's 7% profit decrease, the narrowest decline since profits started heading south last year.

The sales slowdown is particularly worrisome because it points to trouble ahead. Many analysts have been predicting a rebound in corporate profits for the second half of 1990. While they did not expect much relief from rising salary and benefit costs, economists expected that rising inflation would provide an opening to raise prices and relieve the squeeze on profit margins. But a jump in inflation apparently spooked consumers: They are spending less, making it harder for companies to meet revenue projections. "Given what's happening in the economy, the shift away from cost pressures toward revenue shortfalls shouldn't be surprising," says Susan Lakatos, an economist with Kidder, Peabody & Co. Unless consumers open their wallets again, corporate earnings for the year will be flat or slightly down.

NASTY SURPRISE. Many Wall Street analysts were confident of an increase in second-half earnings because last year's second half was so weak. Profits declined by 22% in the 1989 third quarter and 19% in the fourth quarter. That meant even a mediocre performance this year would have looked good by comparison. Now, however, weak sales are suggesting that an anemic economy will keep profits in the slow lane. Commerce Dept. numbers released on July 27 showed gross national product growing by a meager 1.2% in the second quarter. A downward revision in 1989 GNP, from 2.6% to 1.8%, was an unexpected bit of bad news.

Even economists who don't foresee a recession anticipate lackluster profits. Alan Siqueira, an associate economist with DRI/McGraw-Hill, says earnings for the Standard & Poor's 500-stock index will decline 3.8% this year, to $22 a share. The consensus of Wall Street analysts surveyed by Zack's Investment Research Corp. calls for S&P 500 earnings per share of $24.45 this year, but that estimate is likely to shrink as new earnings numbers get factored in.

Indeed, a string of disappointing earnings reports is already forcing investors to reevaluate their expectations. The Dow Jones industrial average fell 7 points in the week after McDonald's Corp. reported a 10% increase in second-quarter profits on July 20. The fast-food chain's earnings per share were just a penny shy of Wall Street's consensus, but news that U. S. sales aren't meeting company expectations was hard for the market to swallow. Other companies cautioning that the second half could



WINNERS AND LOSERS

THE INDUSTRIES

THE SHARPEST GAINS	Percent change from 1989's second quarter	THE DEEPEST DR	Percent ch 1989's secon
COAL	297%	SAVINGS & LOAN	
HEALTH CARE SERVICES	184	STEEL	
TOBACCO	83	TIRE & RUBBER	
FOOD RETAILING	47	AIRLINES	
PETROLEUM SERVICES	40	INSTRUMENTS	
SEMICONDUCTORS	40	BANKS–EAST	
TRANSPORTATION SERVICES	36	CARS & TRUCKS	
CONSTRUCTION & ENGINEERING	32	PUBLISHING	
INSURANCE	30	FOREST PRODUCTS	
BANKS–WEST & SOUTHWEST	23	ALUMINUM	
COMPUTER SOFTWARE	23	TEXTILES	
POLLUTION CONTROL	21	ELECTRIC UTILITIES	
DRUGS & RESEARCH	20	RETAILING	
ENTERTAINMENT	20	MISCELLANEOUS LEISURE	
FOOD PROCESSING	19	TRUCKING & SHIPPING	

ALL-INDUSTRY AVERAGE: -7%

-WITH NO EXIT

S BLEAK AS THE FIRST

h included Capital Cities/ABC, AT&T, Dow Chemical.

Donald's, like many other compa- can thank foreigners that its future more bleak. As profit margins were ezed over the past nine months, cor- tions with low-cost manufacturing ties abroad fared best. Now, compa- with sales overseas are reaping re- s. Analysts say McDonald's average foreign-store sales climbed 13% in the second quarter, compared with a 2.5% decline in average U. S. store sales.

Intel Corp., whose profits growth far outpaced the 40% rise for the semiconductor group, also benefited from foreign sales. It logged a 72% increase in second-quarter profits on robust worldwide demand for its 80386 and 80486 microprocessors. Intel has been forced to allocate the chips because production has not kept pace with demand.

Intel's stock fell along with most other companies on pessimism about the future, though, and some analysts say investors may be wise to avoid getting too excited about overseas prospects, particularly in Europe. So far, plans for creation of a single market in 1992 have been viewed as a plus for American companies with a strong presence there. But Gail Fosler, chief economist with the Conference Board, warns: "If the Europeans succeed in making the market more competitive, then it means prices will come down and profit margins will come down along with them. This happened in the U. S. during the '80s."

BRIGHT SPOTS. Some of the top performances in the second quarter could be traced to domestic factors. The biggest profit increase came from the coal group, which had a rise of 297% over a year earlier, when the United Mine Workers were on strike. Health care services were next, with a 184% gain—which should come as no surprise to companies saddled with rising medical expenditures for their employees. Tobacco, another standout, turned in an 83% profit increase with the help of good export performance. Philip Morris Inc. racked up a 27% gain in earnings. Another leader in third-quarter profit growth was food retailing, up 47%.

If the stock market wanted to focus on bad news, there was plenty to go around. Circle K Corp. reported a stunning $747.4 million loss in the quarter, while Wang Laboratories Inc. sank deeper in the red with a $496.7 million loss. The results were reported too late to be included in the Scoreboard. The steel group had the biggest decline in profits, with a 69% decrease. The average profit for each ton of steel shipped increased to between $20 and $25 in the second quarter from $15 in the first quarter, but it was still half of the $50 a ton in last year's second quarter. Like many manufacturers, steel companies have been hurt by higher labor and energy costs.

The news wasn't much better in the tire and rubber group, where profits fell 55% in the second quarter. Goodyear Tire & Rubber Co. reported a $9.4 million loss after taking a $21.4 million af-

ND-QUARTER PROFITS

THE COMPANIES

MADE THE MOST	Millions of dollars	WHO LOST THE MOST	Millions of dollars
	$1,410	AMES DEPARTMENT STORES	$431
	1,100	COMMONWEALTH EDISON	378
LECTRIC	1,088	DIGITAL EQUIPMENT	257
RRIS	948	GENERAL DYNAMICS	240
IOTORS	900	FIRST FIDELITY BANCORP.	150
	771	HOMEFED	108
	694	RJR NABISCO	108
	657	USAIR GROUP	75
	648	MNC FINANCIAL	75
	498	AMERADA HESS	72
	470	TEKTRONIX	66
	445	R. H. MACY	63
YERS SQUIBB	417	MACK TRUCKS	63
A	410	HARTMARX	55
	397	ARMCO	55

DATA: STANDARD & POOR'S COMPUSTAT SERVICES INC

We helped Dolla and conquer.

What do you call a bank that's everything you see here? Profitable.

Dollar Dry Dock had a new idea—to become a one-stop financial center. And that's where NYNEX® came in.

We gave them a digital network that makes their new ideri possible. It hooks up over 1,000 terminals with instant informati so every teller can sell every product in the shop.

And with our 24-hour support, their one-stop center can go non-stop.

NYNEX would like to work with you, too. In

© 1990 NYNEX Corporation

Dry Dock divide

ddition to the solutions our New York Telephone, NYNEX usiness Information Systems and Telco Research Companies ave Dollar Dry Dock, we offer you the computer and tele-ommunications networks of New England Telephone, along vith the software and services of the other NYNEX companies. Call us at 1 800 535-1535.

Once you've discovered the answer is NYNEX, you von't have to keep shopping around.

Need to communicate? Need to compute? The answer is

NYNEX

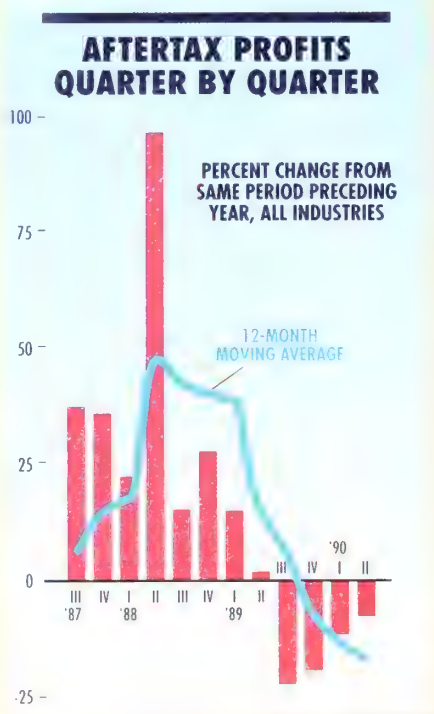
tertax charge to restructure part of its North American tire operations and to close a roofing systems plant. Chairman Tom H. Barrett attributed the poor results to severe price competition in North America and Europe, as well as higher costs.

Competition and costs also featured in the airline industry's 52% earnings decline. Other weak performers include instruments, down 45% because of losses at Tektronix and General Signal, and cars and trucks, down 44%. The group includes Ford Motor, which had a 45% profit decline; General Motors, off 38%; and Chrysler Corp., with a 46% drop.

The outlook is particularly risky for the Big Three. They have been boosting production to rebuild unusually low dealer stockpiles. But that assumes sales will pick up. If not, dealers could be stuck with excess inventories again. "Auto sales have been better than anti-pated, but the fundamentals aren't the for growth," says Mark Zandi, mana-ing director of Regional Financial As-ciates in West Chester, Pa. "Most peop have bought cars over the last fi years. Instead of pent-up demand, we' got spent-up demand." Slowing corp rate sales growth means that rema applies to more than just autos.

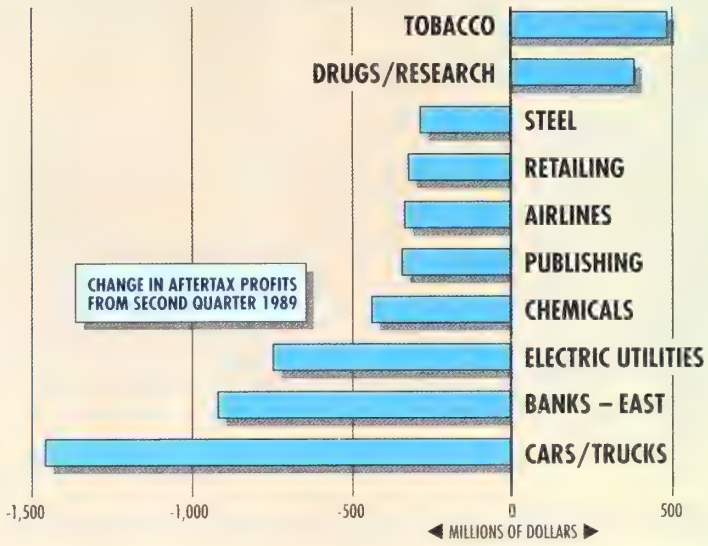
By Monica Roman in New Yo

A SPOTLIGHT ON SECOND-QUARTER PROFITS

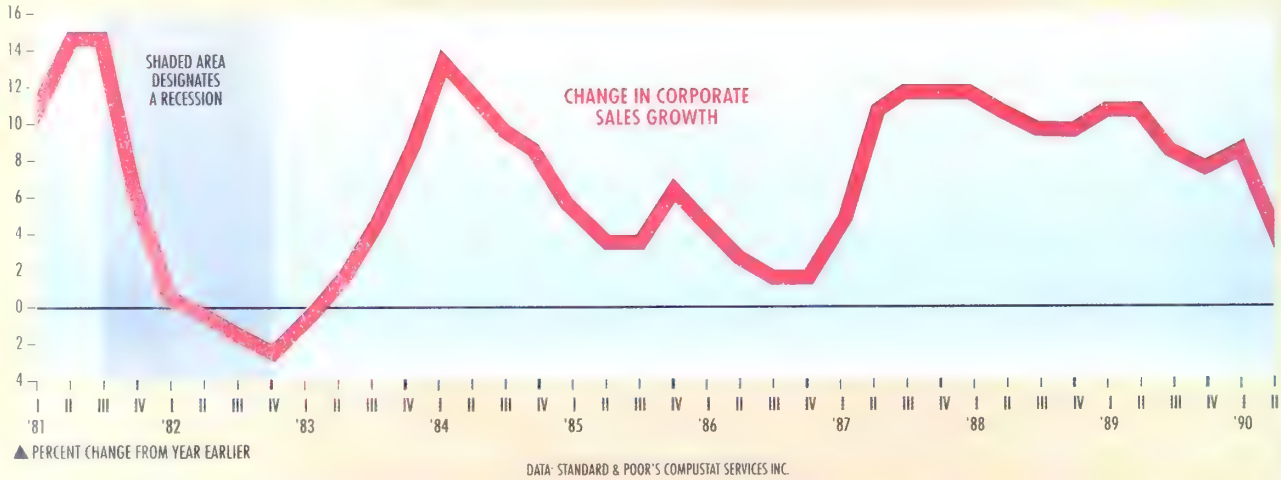


INDUSTRIES WITH THE BIGGEST DOLLAR CHANGE IN THE QUARTER

In 1990's second quarter, profits continued to slide, although the 7% drop was less severe than the first quarter's 12% decline. The latest drop amounted to $3 billion, and these industry groups had the biggest impact



THE OMINOUS SLOWDOWN IN CORPORATE SALES GROWTH



DATA: STANDARD & POOR'S COMPUSTAT SERVICES INC.

CORPORATE SCOREBOARD

SECOND QUARTER 1990

SSARY

s: Includes all sales and other operating ues. For banks, includes all operating ues.
ts: Net income before extraordinary . For banks, profits are net income after ity gains or losses.

Margins: Net income from continuing operations before extraordinary items as percent of sales.
Return on common equity: Ratio of net income available for common stockholders (most recent 12 months) to latest available common equity, which includes common stock, capital surplus, and retained earnings.

Price-earnings ratio: Based on July 20, 1990, common stock price and corporate earnings from continuing operations before extraordinary items for most recent 12-month period.
Earnings per share: For most recent 12-month period. Includes all common-stock equivalents.

MPANY	SALES				PROFITS				MARGINS				
	2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	2ND QUARTER 1990 %	2ND QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 6-30	PRICE-EARNINGS RATIO 7-20	12 MONTHS' EARNINGS PER SHARE
-INDUSTRY APOSITE	**836741.5**	**5**	**1662741.0**	**6**	**42448.1**	**-7**	**81723.1**	**-12**	**5.1**	**5.7**	**12.5**	**17**	**2.29**
ROSPACE													
USTRY COMPOSITE	**26253.6**	**14**	**49932.1**	**16**	**638.8**	**16**	**1423.5**	**2**	**2.4**	**2.4**	**10.3**	**15**	**3.10**
ing	6969.0	37	13404.0	48	387.0	98	689.0	5	5.6	3.8	15.8	16	3.55
Corp (1)	458.0	-13	806.0	-18	10.0	11	33.0	94	2.2	1.7	14.0	15	0.76
eral Dynamics	2624.4	4	5115.4	5	-240.0	NM	-177.8	NM	NM	2.3	-0.8	NM	-0.45
nan	207.1**	2	410.9	1	4.8	-31	9.1	-34	2.3	3.4	2.2	30	0.22
kheed	2416.0	-6	4670.0	0	81.0	1	150.0	3	3.4	3.1	0.5	NM	0.11
rtin Marietta	1657.2	16	3076.0	12	94.5	9	161.6	11	5.7	6.1	21.7	7	6.23
Donnell Douglas	4116.0	22	7936.0	21	39.0	NM	39.0	NM	0.9	NM	1.8	29	1.47
throp	1414.1	1	2691.3	1	29.3	NM	125.3	NM	2.1	NM	11.8	7	2.42
r Industries (5)	297.6	13	525.4	2	4.4	-47	4.4	-74	1.5	3.1	0.3	NM	0.09
dstrand	404.5	3	805.7	4	21.3	-44	47.9	-25	5.3	9.6	17.7	12	2.82
ed Technologies	5689.8**	8	10491.3	8	207.5	5	342.0	7	3.6	3.7	14.4	11	5.58
TOMOTIVE													
USTRY COMPOSITE	**80165.8**	**0**	**151316.8**	**-5**	**2016.1**	**-43**	**3447.8**	**-54**	**2.5**	**4.4**	**7.1**	**12**	**2.56**
S & TRUCKS UP COMPOSITE	**71718.5**	**0**	**134926.5**	**-6**	**1814.3**	**-44**	**3074.6**	**-55**	**2.5**	**4.5**	**6.9**	**12**	**2.69**
ysler	8845.0**	-10	16402.0	-16	180.0	-46	251.0	-63	2.0	3.4	-1.6	NM	-0.36
l Motor	26871.7	4	50472.3	-2	770.7	-45	1276.9	-58	2.9	5.4	9.0	10	4.48
eral Motors	33943.9**	1	64056.7	-4	900.1	-38	1610.1	-46	2.7	4.3	8.0	12	4.07
ck Trucks	400.9**	-23	793.9	-22	-63.3	NM	-97.2	NM	NM	NM	-86.3	NM	-8.87
istar International (2)	1025.0	-10	1911.0	-11	8.0	-77	-10.0	NM	0.8	3.1	-3.8	NM	-0.10
car	632.0**	-26	1290.7	-23	18.8	-60	43.9	-54	3.0	5.6	18.6	7	5.47
TS & EQUIPMENT UP COMPOSITE	**5038.9**	**0**	**9803.1**	**-1**	**169.4**	**-11**	**286.4**	**-25**	**3.4**	**3.8**	**9.3**	**17**	**1.68**
in Industries	444.6	12	840.1	10	11.0	42	13.2	31	2.5	1.9	4.2	23	0.79
mins Engine	871.3	-6	1732.7	-6	6.1	-74	15.0	-65	0.7	2.6	-12.2	NM	-4.65
a	1389.7	0	2721.0	-2	31.6	-26	54.7	-33	2.3	3.1	10.1	14	2.57
aldson (5)	112.2	12	210.5	7	7.3	61	11.2	61	6.5	4.5	15.7	16	1.97
le-Picher Industries (1)	184.4	-5	351.4	-9	22.6	74	28.2	-31	12.3	6.7	NM	1	3.87
on	952.8	-2	1894.4	-2	50.2	-19	100.4	-20	5.3	6.4	16.3	12	4.98
in (4)	426.6	12	802.5	11	13.6	0	20.2	-22	3.2	3.6	5.7	21	0.66
el Industries	77.1	2	138.7	-10	3.2	35	4.7	17	4.1	3.1	14.1	12	1.03
Industries	115.3	3	225.9	3	2.8	-29	5.4	-24	2.4	3.5	7.7	17	0.99
son & Sessions	84.6	-8	159.8	-11	1.8	-46	2.1	-69	2.2	3.7	3.8	25	0.25
dine Mfg. (9)	114.4	8	222.9	3	6.7	5	13.7	8	5.9	6.0	13.9	13	1.71
h (A. O.)	266.0	-1	503.1	-7	12.5	67	17.5	33	4.7	2.8	-1.6	NM	-0.52
& RUBBER UP COMPOSITE	**3408.5**	**3**	**6587.2**	**3**	**32.4**	**-55**	**86.8**	**-56**	**1.0**	**2.2**	**8.2**	**16**	**2.54**
dag	141.9	10	269.6	11	18.7	2	34.4	2	13.2	14.3	33.8	17	5.26
isle	161.1	14	311.8	9	6.6	-41	10.7	-38	4.1	7.9	9.7	13	2.53
per Tire & Rubber	234.7	2	443.3	4	16.4	9	30.2	19	7.0	6.6	18.7	12	3.07
dyear Tire & Rubber	2870.8	2	5562.5	2	-9.4	NM	11.5	-91	NM	1.0	3.7	17	1.67

nd quarter ending May 31. (2) Second quarter ending Apr. 30. (3) Third quarter and most recent six months ending June 30. (4) Third quarter and most recent six months ending May Third quarter and most recent six months ending Apr. 30. (6) Fourth quarter and most recent six months ending June 30. (7) Fourth quarter and most recent six months ending May Fourth quarter and most recent six months ending Apr. 30. (9) First quarter and most recent six months ending June 30. (10) First quarter and most recent six months ending May) First quarter and most recent six months ending Apr. 30. *Sales include excise taxes. **Sales include other income. ***Sales include excise taxes and other income. †Revenues from ubsidiaries not included in consolidated sales. Earnings per share are for latest 12 months, not necessarily for end of most recent fiscal year; they include all common stock equivalents clude extraordinary items. NA=not available. NM=not meaningful.

DATA: STANDARD & POOR'S COMPUSTAT SERVICES INC.

CORPORATE SCOREBOARD

COMPANY	SALES 2ND QUARTER 1990 $ MIL	SALES CHANGE FROM 1989 %	SALES 6 MONTHS 1990 $ MIL	SALES CHANGE FROM 1989 %	PROFITS 2ND QUARTER 1990 $ MIL	PROFITS CHANGE FROM 1989 %	PROFITS 6 MONTHS 1990 $ MIL	PROFITS CHANGE FROM 1989 %	MARGINS 2ND QUARTER 1990 %	MARGINS 2ND QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 6-30	PRICE-EARNINGS RATIO 7-20	12 MONTHS EARNINGS PER SHARE
3 BANKS													
INDUSTRY COMPOSITE	**56595.4**	**0**	**115718.6**	**5**	**3112.3**	**-22**	**6698.9**	**-18**	**5.5**	**7.1**	**3.3**	**37**	**0.7**
(a) BANKS - EAST													
GROUP COMPOSITE	**31958.1**	**-3**	**66837.4**	**5**	**1161.3**	**-44**	**2777.9**	**-35**	**3.6**	**6.4**	**-7.5**	**NM**	**-2.3**
Bank of Boston	1229.8	-31	3118.6	-2	3.5	-96	47.2	-75	0.3	5.5	-4.3	NM	-1.1
Bank of New York	1362.3	-4	2685.1	-1	70.4	-38	172.7	-20	5.2	8.1	-1.0	NM	-0.5
Bankers Trust New York	1851.0	-1	3816.0	7	174.0	-1	372.0	10	9.4	9.4	-42.7	NM	-11.8
Chase Manhattan	3289.0	-4	6997.0	5	52.0	-62	96.0	-64	1.6	4.0	-21.0	NM	-10.0
Chemical Banking	1946.0	-9	4028.0	-1	113.1	-12	264.8	7	5.8	6.0	-17.9	NM	-8.8
Citicorp	9011.0	1	19886.0	13	214.0	-41	479.0	-48	2.4	4.1	-1.3	NM	-0.2
CoreStates Financial	637.6	-3	1270.8	-1	62.2	-17	122.6	-18	9.8	11.5	15.5	9	4.5
First Fidelity Bancorporation	767.6	0	1557.6	2	-150.4	NM	-129.3	NM	NM	7.9	-7.6	NM	-1.8
Fleet/Norstar Financial Group	1051.9	18	2144.1	23	60.1	-33	-38.0	NM	5.7	10.1	7.1	14	1.3
KeyCorp	427.4	4	839.2	5	37.2	11	73.5	14	8.7	8.1	14.5	8	3.4
Manufacturers Hanover	1895.0	-13	3834.0	-9	33.0	-69	129.0	-38	1.7	4.9	-24.0	NM	-13.7
Mellon Bank	967.0	7	1810.0	2	142.0	141	207.0	85	14.7	6.5	17.1	5	5.0
Meridian Bancorp	325.9	15	657.2	19	21.2	-3	42.4	-8	6.5	7.7	12.2	7	2.1
Midlantic	687.8	21	1306.4	18	-24.8	NM	-23.4	NM	NM	10.8	4.0	9	1.5
MNC Financial	818.9	8	1604.4	11	-74.7	NM	-68.5	NM	NM	8.8	2.7	10	1.1
Morgan (J. P.)	2613.0	-6	5143.0	-3	207.0	0	606.0	57	7.9	7.4	-30.1	NM	-7.1
PNC Financial	1237.8	7	2438.7	6	108.9	-13	183.4	-26	8.8	10.8	11.3	9	3.2
Republic New York	675.7	4	1306.3	6	52.6	20	97.1	14	7.8	6.7	0.9	NM	0.3
Shawmut National	663.2	-14	1410.8	-6	25.1	-62	57.2	-56	3.8	8.7	-14.9	NM	-2.7
State Street Boston	178.9	15	351.4	15	28.5	14	56.1	15	15.9	16.0	17.9	13	3.0
UJB Financial	321.3	4	632.9	6	6.4	-79	31.1	-50	2.0	9.9	10.1	7	1.9
(b) BANKS - MIDWEST													
GROUP COMPOSITE	**7944.2**	**2**	**15855.8**	**4**	**609.1**	**-13**	**1228.1**	**-16**	**7.7**	**8.9**	**13.2**	**9**	**2.8**
AmeriTrust	320.1	5	622.7	6	18.4	-39	-33.2	NM	5.8	10.0	3.7	28	0.5
Banc One	842.3	6	1656.7	8	104.0	14	205.8	15	12.3	11.5	16.5	11	2.6
Boatmen's Bancshares	375.8	3	741.3	3	33.0	0	65.5	2	8.8	9.1	11.8	8	3.7
Comerica	325.5	4	646.1	5	32.2	6	63.7	11	9.9	9.6	11.6	9	4.8
Continental Bank	199.0	-19	462.4	-8	-46.1	NM	15.6	-91	NM	31.8	8.2	8	1.7
First Bank System	536.7	-15	1095.0	-12	29.9	-44	58.4	-43	5.6	8.4	-7.9	NM	-1.0
First Chicago	1425.8	2	2876.9	6	87.4	-35	156.0	-40	6.1	9.6	9.8	8	3.4
First of America Bank	335.2	3	665.4	4	31.6	-2	64.4	0	9.4	9.9	14.2	8	5.9
Huntington Bancshares	313.3	8	611.9	11	27.7	2	55.1	4	8.8	9.4	14.9	8	1.8
Michigan National	311.5	-8	621.4	6	17.0	-26	37.0	-3	5.5	6.8	24.4	3	11.5
National City	667.4	4	1340.7	7	67.6	3	132.0	3	10.1	10.3	17.4	8	4.4
NBD Bancorp	667.4	5	1319.4	6	68.0	3	134.6	4	10.2	10.4	15.1	9	3.6
Northern Trust	326.1	4	638.6	6	28.5	-1	54.4	0	8.7	9.2	19.8	10	3.0
Norwest	872.8	14	1701.6	15	70.0	12	138.4	12	8.0	8.2	19.6	8	2.6
Society	425.2	-5	855.7	2	39.9	NM	80.3	NM	9.4	NM	13.6	7	4.5
(c) BANKS - SOUTH & SOUTHEAST													
GROUP COMPOSITE	**6930.4**	**7**	**13688.7**	**9**	**538.2**	**-5**	**1093.0**	**-1**	**7.8**	**8.7**	**14.9**	**8**	**3.47**
Barnett Banks	822.5	6	1607.1	8	58.5	-9	74.0	-42	7.1	8.3	12.8	10	3.2
Citizens & Southern	627.8	2	1240.2	4	57.7	-2	99.3	-15	9.2	9.5	17.4	7	3.4
Crestar Financial	312.2	5	610.9	6	9.0	-65	36.1	-28	2.9	8.6	12.1	8	2.8
First Union	1028.6	26	1993.6	24	86.9	18	164.5	13	8.5	9.0	11.9	8	2.4
First Wachovia	626.2	2	1232.8	4	75.2	11	146.5	8	12.0	11.0	15.7	10	4.0
NCNB	1615.4	7	3234.5	12	137.4	50	277.5	66	8.5	6.1	17.5	7	5.4
Signet Banking	356.2	7	710.5	9	2.9	-91	30.1	-52	0.8	9.4	11.9	5	3.3
Sovran Financial	695.7	5	1375.7	7	22.1	-66	88.7	-30	3.2	9.9	14.0	7	3.8
SunTrust Banks	845.7	2	1683.5	3	88.5	3	176.4	4	10.5	10.4	16.0	8	2.6
(d) BANKS - WEST & SOUTHWEST													
GROUP COMPOSITE	**9762.7**	**2**	**19336.7**	**4**	**803.7**	**23**	**1599.9**	**18**	**8.2**	**6.8**	**13.0**	**8**	**4.13**
BankAmerica	3010.0	4	5951.0	6	212.0	-12	430.0	-4	7.0	8.3	14.0	7	3.5
First City Bancorp. of Texas	348.7	-4	841.3	18	19.8	-29	109.9	102	5.7	7.7	16.9	3	7.6
First Interstate Bancorp	1494.0	-9	2999.9	-7	95.1	0	192.2	2	6.4	5.8	-8.2	NM	-4.6
Security Pacific	2589.5	4	5083.6	5	195.2	6	383.6	5	7.5	7.4	17.0	6	6.2
U. S. Bancorp	473.7	13	925.4	16	47.3	23	89.4	21	10.0	9.2	14.8	9	3.3
Valley National	285.0	-5	561.5	-8	2.0	NM	2.6	NM	0.7	NM	-18.5	NM	-4.1
Wells Fargo	1561.8	10	2974.1	7	232.4	58	392.2	36	14.9	10.4	26.7	6	13.2
4 CHEMICALS													
INDUSTRY COMPOSITE	**33653.7**	**3**	**66455.8**	**5**	**2496.2**	**-15**	**4879.8**	**-17**	**7.4**	**9.0**	**17.3**	**11**	**3.47**
Air Products & Chemicals (3)	712.8	7	1425.9	7	56.8	6	117.4	7	8.0	8.0	14.0	15	3.9
American Cyanamid	1228.3	6	2380.8	5	108.4	11	205.3	17	8.8	8.5	12.5	17	3.3
Arco Chemical	705.0	-3	1390.0	-2	102.0	-15	184.0	-22	14.5	16.5	21.3	11	3.6
Betz Laboratories	147.6	13	290.9	14	16.4	17	31.8	17	11.1	10.8	27.7	20	3.8
Crompton & Knowles	98.4	3	192.7	5	8.8	20	15.7	24	9.0	7.7	27.2	20	2.2
Dexter	224.8	1	451.4	4	12.1	-4	22.1	-8	5.4	5.7	12.6	14	1.6
Dow Chemical	4807.0**	4	9707.0	7	364.0	-50	826.0	-44	7.6	15.8	22.3	9	6.8

Footnotes on page 63

CORPORATE SCOREBOARD

MPANY	SALES				PROFITS				MARGINS				
	2ND QUARTER 1990 $ MIL.	CHANGE FROM 1989 %	6 MONTHS 1990 $ MIL.	CHANGE FROM 1989 %	2ND QUARTER 1990 $ MIL.	CHANGE FROM 1989 %	6 MONTHS 1990 $ MIL.	CHANGE FROM 1989 %	2ND QUARTER 1990 %	2ND QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 6/30 %	PRICE EARNINGS RATIO 7/30	6 MONTHS EARNINGS PER SHARE
ont	9646.0*	4	19050.0	6	694.0	–3	1309.0	–10	7.2	7.7	14.9	12	3.42
elhard	751.3	25	1409.8	18	18.2	20	32.9	12	2.4	2.5	–[illegible]	NM	–1.64
l	603.3	0	1213.0	3	57.1	12	109.6	7	9.5	8.5	24.[illegible]	6	1.90
o	282.1	2	561.8	3	7.1	–46	13.1	–49	2.5	4.8	11.3	16	1.65
port-McMoRan	378.0	–27	770.6	–22	47.4	54	266.8	165	12.5	5.9	185.6	6	5.56
er (H. B.) (1)	204.7	4	386.2	3	6.3	28	7.9	16	3.1	2.5	9.2	5	1.78
rgia Gulf	218.7	25	470.4	–23	15.7	–68	53.1	–49	7.2	16.9	38.2	2	5.44
drich (B. F.)	632.5	1	1222.3	–2	34.9	–34	51.1	–51	5.5	8.4	9.4	10	4.33
ce (W. R.)	1628.5	8	3135.8	8	51.3	15	83.9	12	3.2	3.0	15.4	10	3.11
at American Management (5)	680.0**	74	1153.4	85	20.5	NM	8.8	NM	3.0	NM	15.4	10	2.31
at Lakes Chemical	256.5	33	508.8	51	34.5	11	68.8	15	13.5	16.2	21.2	17	3.77
na (M. A.)	289.4	–1	557.3	2	18.1	–50	21.7	–56	6.3	12.3	10.5	11	2.12
cules	795.8	1	1567.2	2	30.2	–27	63.9	–26	3.8	5.3	–6.2	NM	–2.60
ite (6)	139.2	15	273.1	15	17.6	9	33.4	11	12.6	13.3	22.6	18	3.39
izol	357.8	9	715.0	6	33.1	27	62.2	10	9.2	7.9	15.3	16	2.72
ndell Petrochemical	1403.0	–6	2891.0	5	155.0	50	233.0	–2	11.0	6.9	NM	4	4.62
nsanto	2367.0	1	4653.0	1	247.0	2	441.0	–5	10.4	10.3	16.5	10	5.00
co Chemical	301.6	13	586.4	13	33.1	12	62.8	15	11.0	11.1	48.3	18	3.23
	660.0	0	1296.0	–2	29.0	–17	61.0	–12	4.4	5.3	18.4	9	5.66
ene	115.4	–27	245.6	–26	1.1	–91	1.4	–96	0.9	7.7	NM	NM	0.81
m & Haas	768.5	5	1462.9	3	70.0	1	124.1	1	9.1	9.4	15.4	13	2.67
lman (A.) (4)	181.1	12	340.2	6	9.6	18	17.6	15	5.3	5.0	16.6	18	2.53
ling Chemicals (3)	139.1	–7	256.2	–18	18.8	7	29.7	–40	13.5	11.7	45.3	10	0.77
on Carbide	2135.0	–6	4308.0	–5	116.0	–38	210.0	–46	5.4	8.2	16.1	7	2.78
a Chemical (3)	182.9	–10	366.7	–9	20.4	–42	36.6	–46	11.2	17.3	NM	6	6.74
lman	209.4	127	418.0	127	18.3	29	36.1	31	8.7	15.4	18.7	11	2.00
co	403.3	–2	798.6	–2	23.3	0	37.8	–13	5.8	5.6	5.1	26	1.38
NGLOMERATES													
USTRY COMPOSITE	**39825.3**	**4**	**76799.6**	**5**	**2351.1**	**11**	**4304.6**	**5**	**5.9**	**5.6**	**16.4**	**13**	**3.84**
Standard (3)	1183.4**	15	2349.3	13	30.1	–3	58.9	–2	2.5	3.0	17.5	14	2.68
ed-Signal	3184.0	2	6239.0	3	121.0	–27	250.0	–14	3.8	5.3	14.6	10	3.37
Group (11)	234.0	15	510.0	19	2.3	–16	7.0	–14	1.0	1.4	4.3	15	6.04
ie International	342.5	3	682.9	4	11.9	–13	24.0	15	3.5	4.1	17.9	17	3.14
ua Industries	250.5	8	496.8	4	5.8	95	11.8	46	2.3	1.3	3.1	38	0.58
eral Cinema (2)	642.8	20	1159.7	19	29.8	–15	49.9	–31	4.6	6.5	5.3	18	1.13
eral Electric	14214.0	6	26645.0	6	1688.8	12	2038.0	12	7.7	7.2	19.8	16	4.62
eral Host (11)	166.0	5	298.3	5	5.5	261	11.1	899	3.3	1.0	3.0	23	0.26
yhound Dial	912.3	–1	1777.8	1	39.2	10	56.1	11	4.3	3.9	10.5	10	2.84
	5226.0	0	10159.0	1	397.0	63	650.0	46	7.6	4.7	14.8	7	8.30
(5)	151.1	13	285.2	13	20.1	46	33.6	31	13.3	10.3	15.9	20	1.68
n Central	554.5	25	1041.1	32	26.1	–3	51.1	–57	4.7	6.1	5.8	15	1.88
xwell International (3)	3126.0	–3	6276.7	–2	171.2	–4	344.6	–23	5.5	5.5	15.1	11	2.50
dyne	882.1	–3	1719.0	–3	26.6	19	59.3	–13	3.0	3.6	27.3	9	2.55
neco	3636.0	–1	7238.0	4	206.0	14	340.0	18	5.7	4.9	15.7	14	4.90
tron	1989.1**	8	3872.5	5	72.1	5	138.3	5	3.6	3.7	10.6	8	3.04
V	2100.0	14	4091.0	13	63.0	–10	120.0	–14	3.0	3.8	13.9	11	3.99
itman	1030.9	8	1958.3	8	35.3	–26	61.0	–30	3.4	5.0	4.8	16	1.59
NSUMER PRODUCTS													
USTRY COMPOSITE	**45695.1**	**10**	**87984.6**	**10**	**2757.5**	**30**	**4920.9**	**25**	**6.0**	**5.1**	**22.3**	**17**	**2.09**
AREL UP COMPOSITE	**5294.5**	**11**	**10583.5**	**10**	**170.7**	**–17**	**436.2**	**3**	**3.2**	**4.3**	**19.6**	**15**	**1.48**
gelica (11)	101.6	12	195.4	14	5.8	21	10.2	22	5.7	5.3	10.2	16	2.16
wn Group (11)	438.7	0	922.0	3	8.7	20	19.3	129	2.0	1.7	9.5	15	1.87
stal Brands	177.5	10	396.3	3	–1.4	NM	5.2	16	NM	NM	11.5	9	3.10
t of the Loom	443.0	17	766.7	16	37.3	45	50.1	50	8.4	6.8	26.0	9	1.44
tmarx (1)	303.9	0	646.1	2	–55.1	NM	–52.8	NM	NM	1.0	–13.5	NM	–2.45
rco (10)	357.9	–24	738.2	–22	–34.1	NM	–52.0	NM	NM	NM	NM	NM	–3.29
wood (8)	191.5	–4	362.4	–7	–3.4	NM	–2.2	NM	NM	4.9	7.1	12	1.20
Gear (1)	225.4	33	412.7	75	10.2	–36	24.1	13	4.5	9.5	31.7	9	1.44
ie Fay	166.3	7	389.2	9	1.1	252	10.7	9	0.7	0.2	15.7	10	1.39
Claiborne	340.3	25	761.1	22	34.9	21	87.5	20	10.3	10.6	27.7	15	2.04
rcade Group (11)	96.9	20	190.4	26	0.4	–79	1.4	–38	0.4	2.5	8.2	6	0.12
e (7)	609.0	47	1186.9	35	67.2	84	130.3	58	11.0	8.8	33.6	14	5.42
ford Industries (7)	136.6	4	261.6	–1	0.4	–82	0.9	–74	0.3	1.9	7.5	11	0.82
lips-Van Heusen (11)	155.4	5	341.3	9	0.6	–78	3.3	–47	0.4	2.0	31.3	[illegible]	1.42
bok International	527.2	22	1081.6	18	43.4	6	96.1	1	8.2	9.4	20.4	10	[illegible]
sell	166.6	11	325.6	10	12.9	29	27.2	18	7.7	6.7	16.5	18	1.67
de Rite (1)	142.2	17	266.6	13	15.8	20	29.6	20	11.1	10.8	28.9	[illegible]	[illegible]
ex	80.1	40	137.5	32	3.5	572	1.2	NM	4.3	0.9	5.6	[illegible]	0.26
	634.7	4	1201.9	2	22.4	51	45.6	–46	3.5	7.4	17.0	12	2.25

Footnotes on page 63

CORPORATE SCOREBOARD

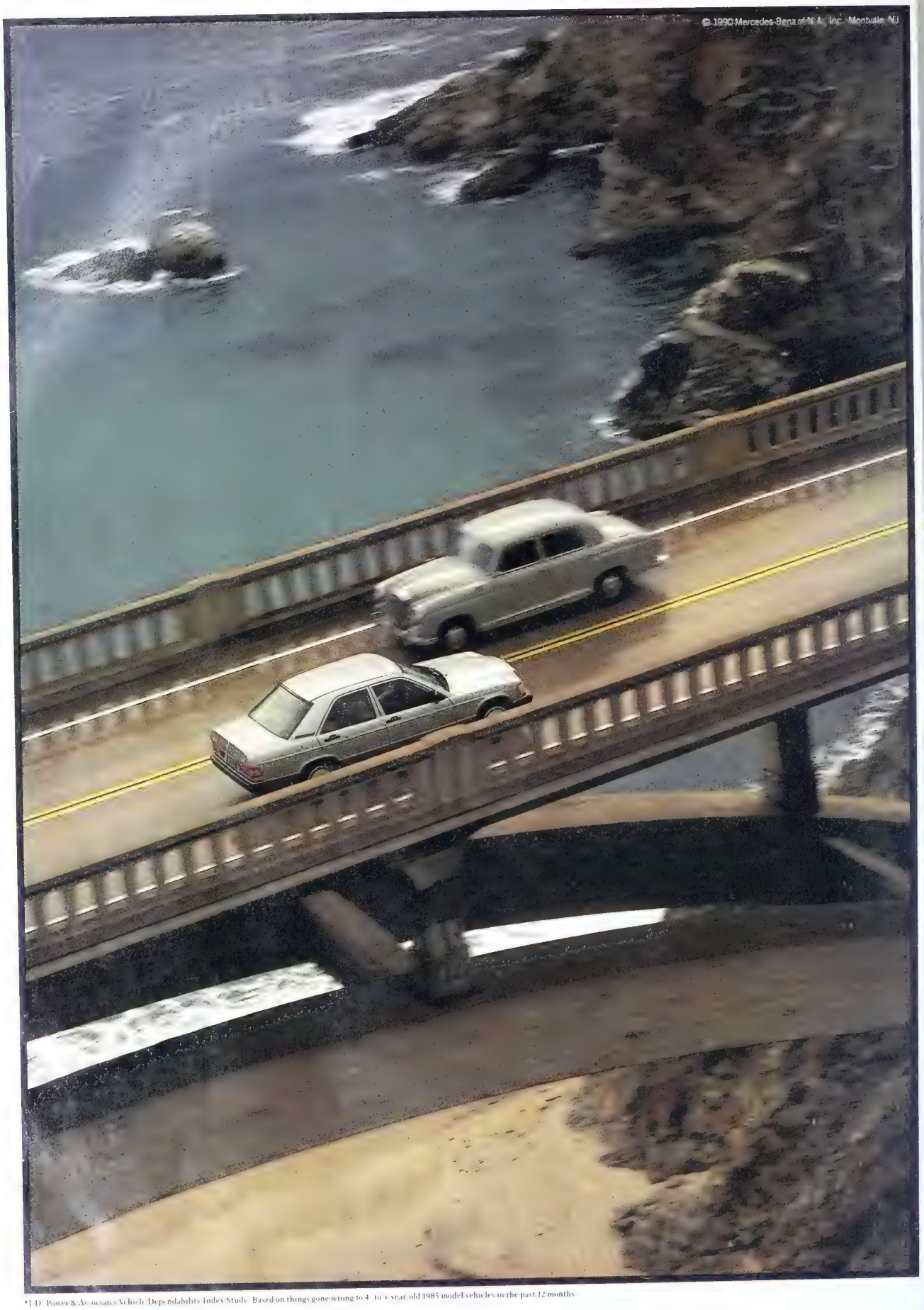
COMPANY	SALES 2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	PROFITS 2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	MARGINS 2ND QUARTER 1990 %	MARGINS 2ND QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 6 30	PRICE-EARNINGS RATIO 7-20	12 MONTH EARNING PER SHARE
(b) **APPLIANCES & HOME FURNISHINGS**													
GROUP COMPOSITE	**4148.5**	**5**	**8455.0**	**8**	**124.1**	**–6**	**245.6**	**–11**	**3.0**	**3.3**	**12.4**	**14**	**1.39**
Bassett Furniture Industries (1)	114.5	–4	219.9	–3	5.7	12	–1.0	NM	5.0	4.3	3.9	28	1.19
Circuit City Stores (10)	493.4	21	1184.5	22	12.1	13	48.0	17	2.4	2.6	22.1	15	1.73
Fedders	103.4	–18	215.9	–7	7.4	–7	15.5	5	7.1	6.3	25.6	11	1.18
Heilig-Meyers (10)	112.7**	14	218.1	16	7.1	20	11.1	30	6.3	6.0	11.1	15	1.86
Highland Superstores (11)	185.3	–6	500.3	–2	–6.7	NM	–9.4	NM	NM	NM	-9.1	NM	–0.58
La-Z-Boy Chair (8)	169.2	6	315.3	7	11.1	6	17 2	8	6.5	6.6	13.2	13	1.58
Ladd Furniture	136.0	41	275.1	45	3.5	–49	6.1	–52	2.6	7.2	7.6	18	0.53
Maytag	788.5	–3	1550.6	4	30.4	8	63.1	1	3.9	3.5	13.7	14	1.26
Pier 1 Imports (10)	138.4	22	275.2	22	7.7	15	13.5	16	5.6	5.9	14.6	13	0.74
Toro (5)	243.0	19	438.0	21	8.8	7	15.6	3	3.6	4.0	17.4	13	1.96
Whirlpool	1664.0	4	3262.0	3	37.0	–26	66.0	–27	2.2	3.1	11.3	12	2.35
(c) **BEVERAGES**													
GROUP COMPOSITE	**11668.9**	**14**	**21535.1**	**14**	**1067.9**	**16**	**1760.7**	**12**	**9.2**	**9.0**	**23.8**	**22**	**2.24**
Anheuser-Busch	2778.7	12	5171.6	10	257.5	10	440.0	10	9.3	9.4	25.6	16	2.82
Brown-Forman (8)	224.2	14	477.5	2	24.6	16	55.8	–30	11 0	10 8	13.8	24	2.88
Coca-Cola	2739.3	18	4887.6	15	409.9	18	693.4	15	15.0	14.8	41.3	25	1.87
Coca-Cola Bottling Consolidated	121.8	16	215.0	13	3.0	87	1.0	NM	2.4	1.5	–0.7	NM	–0.10
Coca-Cola Enterprises	1124.9	3	2031.3	4	55.3	43	63.4	21	4.9	3.6	4.7	31	0.53
Coors (Adolph)	475.4	12	869.7	16	25.1	49	32.8	172	5.3	4.0	3.2	27	0.92
PepsiCo	4204.7	17	7882.4	20	292.5	10	474.4	10	7.0	7.4	23.8	23	3.56
(d) **PERSONAL CARE**													
GROUP COMPOSITE	**4980.3**	**9**	**9605.0**	**9**	**336.4**	**18**	**618.1**	**20**	**6.8**	**6.3**	**31.3**	**21**	**2.55**
Alberto-Culver (3)	201.7	11	396.5	9	9.6	16	17 1	17	4.8	4.5	18.9	21	1.25
Avon Products	793.3	2	1497.1	1	47.5	20	62.7	37	6.0	5.1	65.8	15	2.38
Chemed	151.4	0	295.3	1	5.4	-26	9.6	–24	3.5	4.8	17.6	12	2.25
Church & Dwight	104.1	9	202.1	8	5.2	142	11.0	165	4.9	2.2	13.8	23	0.76
Colgate-Palmolive	1452.9	13	2754.0	10	81 9	11	163.2	16	5.6	5 7	40.0	17	4.25
Ecolab	373.0	4	641.9	8	15 4	30	13 1	217	4.1	3.3	2.6	77	0.34
Gillette	1029.0	14	2076.2	13	82.1	31	169 1	21	8.0	6.9	641.4	24	2.70
Helene Curtis Industries (10)	195 1	22	402.1	22	–1.8	NM	3.5	–45	NM	1.4	8.7	20	1.37
International Flavors & Fragrances	253.9	7	495.3	7	45.9	11	87.5	9	18.1	17.5	18.6	19	3.84
NCH (8)	160.1	6	323.9	8	8.9	–4	19.6	5	5.6	6.1	18 6	13	4.69
Stepan	96.6	13	192.0	10	4.5	471	8.0	117	4.7	0.9	16 3	11	2.21
Tambrands	169.3	2	328.5	11	31.8	21	53.8	22	18.8	15.8	4.7	NM	0.60
(e) **TOBACCO**													
GROUP COMPOSITE	**19602.8**	**10**	**37806.2**	**8**	**1058.3**	**83**	**1860.2**	**64**	**5.4**	**3.2**	**22.7**	**14**	**2.28**
American Brands	2952 4**	8	6156.1	3	158.4	32	353.8	21	5.4	4.4	22.0	10	7.08
Culbro	260.4***	4	492.8	3	3.0	5	3.9	–3	1.2	1.2	0.8	NM	0.23
Philip Morris	12740.0**	12	24128.0	10	948.0	27	1723.0	29	7.4	6.5	33.7	14	3.60
RJR Nabisco	3459.0	5	6663.0	7	–108.0	NM	–330.0	NM	NM	NM	–88.9	NA	–2.96
UST	191 1*	10	366.3	11	56.9	14	109 5	17	29.8	28.9	44.2	18	1.78
7 CONTAINERS & PACKAGING													
INDUSTRY COMPOSITE	**5066.5**	**7**	**9920.1**	**11**	**252.3**	**–16**	**477.8**	**–20**	**5.0**	**6.4**	**15.0**	**11**	**2.60**
(a) **GLASS, METAL & PLASTIC**													
GROUP COMPOSITE	**1433.2**	**16**	**2678.8**	**17**	**63.2**	**13**	**108.0**	**13**	**4.4**	**4.5**	**11.8**	**17**	**2.27**
Ball	381.9	13	703.4	18	18 8	25	28.0	23	4.9	4.4	11.5	20	1.63
Constar International	125.7	11	249.4	–10	3.9	0	8.2	11	3.1	2.8	12.7	9	2.35
Crown Cork & Seal	675.1**	31	1241.6	31	32.1	18	53.4	15	4.8	5.3	12.2	17	3.67
Heekin Can	78.8	0	148.0	2	2.9	22	4.8	14	3.7	3.0	20.8	10	4.12
Van Dorn	89.6	3	170.5	1	2.6	340	5.0	112	2.9	0.7	8.1	18	0.93
West	82.1	3	165.9	4	2.9	–57	8.5	–34	3.5	8.6	8.9	16	1.02
(b) **PAPER**													
GROUP COMPOSITE	**3633.3**	**4**	**7241.3**	**9**	**189.2**	**–23**	**369.8**	**–26**	**5.2**	**7.1**	**16.0**	**9**	**2.69**
Bemis	281.4	0	553.2	1	13.8	10	23.2	14	4.9	4.5	18.7	19	1.92
Federal Paper Board	317.2	3	634.0	7	34.6	–33	73.4	26	10.9	16.6	21.3	5	4.32
Gaylord Container (3)	172.2	11	333.7	-10	–6.9	NM	–19.4	NM	NM	5.6	–4.3	NM	–0.46
Greif Bros. (2)	109 3	–1	213.7	1	4 4	–40	9.1	–28	4.1	6.6	9.3	20	1.91
Longview Fibre (2)	163.3	–3	330.2	2	15.5	0	28.5	–18	9.5	9 2	15 2	10	1.10
Nashua	151.9	8	290.1	5	5.1	56	8.7	87	3.3	2.3	9.1	18	2.34
Sonoco Products	420.7	1	824.3	–3	27.6	4	52.4	–1	6.6	6.9	19 4	14	2.35
Stone Container	1429.8	4	2883.5	15	29.4	–54	66.2	–56	2 1	4.6	14.8	5	3.36
Temple-Inland	587.4	20	1178.6	22	65.7	24	127.9	19	11.2	10.8	17.4	9	4.11
8 DISCOUNT & FASHION RETAILING													
INDUSTRY COMPOSITE	**61310.2**	**12**	**137244.7**	**11**	**846.4**	**–27**	**3293.8**	**–23**	**1.4**	**2.1**	**13.9**	**20**	**1.52**
Alexander's (5)	98.2**	7	265.4	0	–2.5	NM	–0.1	NM	NM	NM	–2.9	NM	–0.63
Ames Department Stores (11)	934.8	–14	2340.1	–17	–430.9	NM	–627.9	NM	NM	NM	NM	NM	–17.23
Baker (J.) (11)	105.1	77	222.5	86	3.2	61	7.3	103	3.1	3.4	16.3	7	1.54
Best Products (11)	407.9	4	1266.3	2	–26.3	NM	13.0	NM	NM	NM	NM	NA	NA

Footnotes on page 63

CORPORATE SCOREBOARD

PANY	SALES				PROFITS				MARGINS				
	2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	2ND QUARTER 1990 %	2ND QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 6 30	PRICE-EARNINGS RATIO 7-20	12 MONTHS' EARNINGS PER SHARE
	127.0	11	243.9	12	9.8	23	19.3	36	7.7	6.9	27.2	11	3.56
r Hawley Hale Stores (5)	590.9**	–1	1575.7	3	–6.6	NM	13.4	–28	NM	NM	NM	83	0.06
ning Shoppes (11)	191.8	11	434.5	10	7.0	1	17.6	–26	3.6	4.0	13.6	15	0.72
World (11)	130.1	–1	534.7	–1	–7.4	NM	12.8	–28	NM	NM	1.7	41	0.31
Holding (11)	224.5	–7	757.9	–4	–14.0	NM	8.2	–23	NM	NM	NM	NA	16.82
olidated Stores (11)	140.0	6	348.2	0	–3.7	NM	–8.3	NM	NM	NM	–6.8	NM	–0.21
o Wholesale (4)	947.9	44	1926.4	42	5.4	40	20.4	67	0.6	0.6	10.9	38	1.18
on Hudson (11)	3007.0**	6	7492.0	B	58.0	45	308.0	39	1.9	1.4	23.6	13	5.58
d Department Stores (11)	742.4**	24	1837.0	24	29.4	50	114.9	35	4.0	3.3	14.0	20	4.57
General (11)	133.8	3	325.8	2	0.4	NM	7.7	39	0.3	NM	11.0	14	0.72
n Brothers Stores (11)	248.0	16	615.1	NA	7.5	27	38.4	NA	3.0	2.7	26.0	14	3.12
Centers of America (11)	80.1	8	186.1	13	0.6	20	7.3	61	0.8	0.7	12.7	13	1.72
y Dollar Stores (4)	217.5	16	444.9	16	7.8	65	17.1	37	3.6	2.5	13.7	15	0.96
1)	402.4	30	947.5	29	21.2	41	55.4	17	5.3	4.9	29.2	20	2.94
sco (11)	110.0	5	249.7	7	–1.5	NM	6.5	–31	NM	NM	13.2	7	0.78
ock Fabrics (11)	94.4	11	184.4	11	6.5	11	14.2	14	6.9	6.9	30.6	18	2.22
nger (11)	344.7	25	655.6	26	8.4	15	16.9	–16	2.4	2.7	8.1	14	0.90
Department Stores (11)	452.8	14	1172.7	21	–16.3	NM	11.8	97	NM	NM	153.7	27	0.12
Depot (11)	880.9	37	1594.1	37	38.6	49	68.2	52	4.4	4.0	22.8	38	1.04
Shopping Network (4)	246.5	38	508.5	32	4.0	NM	15.8	NM	1.6	NM	2.8	NM	0.04
e of Fabrics (11)	86.4	9	190.5	6	2.2	61	7.7	28	2.5	1.7	12.1	15	1.76
son Stores (11)	89.9**	4	220.5	7	1.1	–46	8.8	–8	1.3	2.4	12.6	11	1.88
sway (11)	187.1	16	474.7	12	–1.0	NM	3.6	40	NM	NM	4.5	13	0.42
t (11)	7103.0**	16	17003.0	16	100.0	6	80.0	–84	1.4	1.5	6.6	22	1.64
' End (11)	112.2	4	313.5	6	1.7	–64	18.2	–12	1.5	4.4	22.5	12	1.31
d (11)	1107.3	15	2689.9	16	62.3	38	215.4	30	5.6	4.7	28.4	22	1.01
's (11)	720.9	20	1320.5	13	22.0	51	32.1	22	3.1	2.4	12.4	17	2.21
(R. H.) (5)	1486.3**	0	3927.7	4	–63.1	NM	–102.2	NM	NM	NM	NM	NA	–132.40
Department Stores (11)	2197.0**	7	5435.0	6	80.0	25	363.0	23	3.6	3.1	21.8	14	3.89
ille	1949.2	16	3567.0	11	78.3	27	86.1	0	4.0	3.7	30.4	16	3.54
antile Stores (11)	494.1**	3	1268.6	2	28.4	5	81.0	–4	5.7	5.6	12.0	11	3.58
y-Go-Round Enterprises (11)	121.0	64	305.6	69	6.6	297	17.6	126	5.5	2.3	24.8	18	1.27
r (Fred) (11)	702.7	13	1375.7	16	6.1	7	–16.9	NM	0.9	0.9	–2.5	NM	–0.26
an-Marcus Group (5)	370.8	8	911.9	15	4.0	–14	22.5	21	1.1	1.4	NM	78	0.21
strom (11)	555.0	B	1412.5	11	13.2	–43	44.6	–37	2.4	4.5	14.2	28	1.29
ey (J. C.) (11)	3801.0	6	9145.0	7	154.0	20	521.0	–7	4.1	3.6	21.4	9	6.55
oys–Manny, Moe & Jack (11)	213.0	19	428.6	24	9.4	24	17.9	1	4.4	4.3	11.5	24	0.66
Stores (11)	301.5	8	689.3	4	7.4	6	27.1	5	2.5	2.5	5.0	38	0.70
4)	1202.5**	8	2322.1	7	23.3	10	49.2	5	1.9	1.9	21.2	16	2.51
Network (11)	161.3	207	444.3	270	–5.8	NM	–2.5	NM	NM	2.3	0.3	NM	–0.07
s Stores (11)	353.3	8	840.8	9	2.1	66	9.2	19	0.6	0.4	3.1	13	0.50
Stores (11)	169.7	10	400.1	13	1.6	–54	16.7	–15	0.9	2.2	26.4	9	1.18
, Roebuck	13851.7**	4	26457.5	4	237.9	–29	333.7	–44	1.7	2.5	9.1	10	3.47
ce Merchandise	749.2	5	1374.7	7	1.2	–91	–14.3	NM	0.2	1.9	NM	8	0.94
el	403.7	23	793.6	22	7.7	15	15.4	19	1.9	2.0	18.5	17	1.46
bridge & Clothier (11)	209.2**	10	560.1	9	3.1	98	28.7	28	1.5	0.8	13.9	9	3.58
y (11)	93.2	27	222.9	26	5.4	29	21.4	26	5.8	5.8	24.3	22	2.21
1)	513.8	10	1132.4	10	14.6	–24	28.7	–3	2.8	4.1	30.2	14	1.03
R' Us (11)	944.8	23	3273.3	23	33.2	22	275.0	23	3.5	3.5	18.7	29	1.11
Shoe (11)	666.7	17	1425.0	14	17.4	239	40.6	76	2.6	0.9	11.0	12	1.38
an (11)	546.1	19	1103.1	18	1.4	–78	8.6	–20	0.3	1.4	8.9	10	0.83
Mart Stores (11)	6768.2	26	14875.7	25	253.4	28	679.3	30	3.7	3.7	27.1	34	1.00
esale Club (11)	154.8	42	350.9	44	0.8	NM	5.5	109	0.5	NM	16.4	23	1.06
worth (11)	2065.0**	10	4860.0	10	38.0	6	213.0	18	1.8	1.9	15.8	13	2.57
CTRICAL & ELECTRONICS													
STRY COMPOSITE	**23446.9**	**7**	**45802.0**	**8**	**1215.1**	**5**	**2352.2**	**5**	**5.2**	**5.3**	**13.9**	**15**	**2.48**
RICAL PRODUCTS P COMPOSITE	**6238.5**	**5**	**11953.4**	**6**	**453.8**	**13**	**819.5**	**13**	**7.3**	**6.8**	**17.1**	**13**	**2.94**
r Electric	77.6	6	147.3	5	3.9	14	7.3	13	5.1	4.7	11.9	14	1.42
er Industries	1585.0**	17	3005.3	26	99.8	39	159.6	45	6.3	5.3	10.6	17	2.66
yte Group	123.0	–4	254.7	–1	1.7	–51	4.8	–23	1.3	2.6	20.7	9	0.84
ell	183.1	9	356.8	8	22.4	7	43.5	9	12.2	12.4	18.9	16	2.90
nal Service Industries (4)	420.3	9	816.0	7	25.6	6	48.0	5	6.1	6.3	15.4	14	1.98
re D	406.5	–2	795.0	–2	30.1	–7	57.3	–4	7.4	7.8	16.6	13	4.03
as & Betts	151.7	11	304.8	11	15.0	6	30.5	3	9.9	10.4	16.0	17	3.21
as Industries	116.4	3	236.5	18	3.4	–22	6.5	–33	2.9	3.9	12.4	B	1.71
inghouse Electric	3175.0	0	6037.0	0	252.0	10	462.0	11	7.9	7.2	21.3	12	3.30
RONICS P COMPOSITE	**7971.5**	**8**	**15677.6**	**9**	**403.1**	**–1**	**789.3**	**2**	**5.1**	**5.5**	**15.0**	**13**	**4.43**
ew (3)	92.8	21	179.6	22	3.7	0	7.4	12	4.0	4.8	9.5	12	1.80
tems	438.4	11	896.1	13	22.6	16	44.5	16	5.2	4.9	15.4	9	2.84
ral Instrument (10)	379.5	10	730.7	B	23.2	5	44.6	4	6.1	6.4	18.4	15	3.11
Industries (5)	1260.6	–1	2529.0	2	45.2	1	89.7	2	3.6	3.5	13.4	10	7.21
(9)	318.0	37	762.7	36	17.8	B	42.9	29	5.6	7.1	13.5	8	3.13

Footnotes on page 63



*J.D. Power & Associates Vehicle Dependability Index Study. Based on things gone wrong to 4- to 5-year-old 1985 model vehicles in the past 12 months.

The car declared the most durable in the world meets the car ranked the most dependable in America.

Robust long life seems to be almost something bred into the Mercedes-Benz genes.

The *Guinness Book of World Records* has taken note of this phenomenon by declaring a 1957 Mercedes-Benz, with 1,184,880 miles on the clock, "the world's most durable car."

And in a recent survey of long-term vehicle dependability, covering original owners' experiences with their 1985 cars,* J.D. Power & Associates found — surprise! — that Mercedes-Benz owners report fewer things gone wrong than owners of any other cars in the survey.

Of course, the levelheaded engineers of Mercedes-Benz insist that even phenomena can be explained in rational terms.

By an R&D brain trust twelve thousand people deep, for example. By a bank of more than ten thousand original engineering patents. And by manufacturing tolerances somewhat finer than the width of a human hair.

Focus these and myriad other Mercedes-Benz engineering strengths on the goal of building the most dependable and long-lived cars possible, the engineers say–and the rest will logically follow.

And the rest, of course, is automotive legend.

If you wish to follow up on the remarkable dependability and longevity accomplishments of Mercedes-Benz, visit your authorized dealer soon. Or call 1-800-228-9191 toll free, anytime.

ENGINEERED LIKE NO OTHER CAR IN THE WORLD

CORPORATE SCOREBOARD

COMPANY	SALES 2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	SALES 6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	PROFITS 2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	PROFITS 6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	MARGINS 2ND QUARTER 1990 %	MARGINS 2ND QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 6 30	PRICE-EARNINGS RATIO 7-20	12 MONTH EARNING PER SHARE
Motorola	2715.0	14	5248.0	15	161.0	5	288.0	4	5.9	6.5	13.0	21	3.90
Raytheon	2346.0	2	4570.9	5	144.8	8	275.7	8	6.2	5.8	21.9	8	8.37
Varian Associates (3)	343.6	13	608.4	2	–18.9	NM	–9.6	NM	NM	3.0	0.2	NM	–0.05
Watkins-Johnson	77.6	–6	152.2	7	3.7	–34	6.0	–44	4.7	6.7	9.8	9	1.70
(c) INSTRUMENTS													
GROUP COMPOSITE	**4511.6**	**9**	**8947.5**	**9**	**82.9**	**–45**	**217.0**	**–28**	**1.8**	**3.7**	**16.1**	**12**	**2.85**
Allen Group	104.0	11	197.5	8	6.0	90	9.4	66	5.8	3.4	7.5	16	1.18
Ametek	157.6	9	326.5	13	10.5	–4	20.2	–9	6.6	7.5	18.4	14	0.83
Beckman Instruments	202.9	1	388.4	–3	8.6	–25	16.6	–25	4.2	5.7	12.4	14	1.27
Esterline (2)	101.2	44	202.7	42	2.0	–9	3.8	0	1.9	3.1	11.7	10	1.07
General Signal	481.7	–1	952.1	–2	21.9	NM	–1.6	NM	NM	3.8	7.5	28	2.01
Honeywell	1547.6	2	3074.4	4	92.4	54	175.8	58	6.0	4.0	32.9	7	14.87
Johnson Controls (3)	1172.4	29	2256.8	27	27.0	15	35.1	–18	2.3	2.6	9.8	15	2.02
Millipore	173.8	4	338.5	3	13.9	3	26.9	4	8.0	8.1	12.9	18	1.94
Perkin-Elmer (5)	208.2	5	426.6	7	10.1	–4	22.1	–8	4.8	5.3	11.2	22	1.02
Tektronix (7)	362.3	0	784.1	–1	–65.7	NM	–91.2	NM	NM	NM	–20.2	NM	–3.19
(d) SEMICONDUCTORS													
GROUP COMPOSITE	**4725.3**	**6**	**9223.5**	**5**	**275.4**	**40**	**526.3**	**21**	**5.8**	**4.4**	**8.8**	**23**	**1.15**
Advanced Micro Devices	267.7	–3	539.2	–1	–5.9	NM	7.2	–68	NM	4.4	3.0	29	0.25
AMP	751.8	4	1516.2	6	68.3	4	148.1	4	9.1	9.1	17.2	18	2.68
Analog Devices (2)	116.4	1	226.1	–1	4.7	–54	5.5	–72	4.0	8.8	3.8	25	0.29
Augat	77.7	–3	149.5	–7	4.8	120	8.2	58	6.2	2.7	9.5	15	1.00
Chips & Technologies (6)	81.7	32	148.1	24	6.3	–37	11.3	–42	7.7	16.3	21.9	9	1.88
Intel	968.3	30	1862.8	28	170.7	72	314.5	60	17.6	13.3	16.1	17	2.59
LSI Logic	159.7	13	298.8	9	6.2	39	7.3	–41	3.9	3.2	–10.3	NM	–0.72
Micron Technology (4)	84.1	–29	161.5	–31	1.8	–94	1.8	–97	2.2	24.2	3.7	23	0.48
National Semiconductor (7)	456.3	9	860.6	8	3.0	NM	–9.8	NM	0.7	NM	–4.8	NM	–0.38
Sprague Technologies	85.0	–5	169.4	–14	2.0	NM	3.4	NM	2.4	NM	–14.0	NM	–1.68
Texas Instruments	1592.0	–2	3128.0	–3	11.0	–90	24.0	–87	0.7	6.5	4.5	31	1.07
VLSI Technology	84.6	20	163.4	25	2.4	245	4.7	NM	2.9	1.0	6.8	19	0.45
10 FOOD													
INDUSTRY COMPOSITE	**56323.4**	**9**	**110059.5**	**10**	**1446.5**	**23**	**2609.9**	**19**	**2.6**	**2.3**	**22.7**	**21**	**1.75**
(a) FOOD DISTRIBUTION													
GROUP COMPOSITE	**7022.2**	**5**	**12987.0**	**5**	**71.0**	**16**	**137.1**	**7**	**1.0**	**0.9**	**14.4**	**15**	**1.74**
International Multifoods (10)	548.1	9	1076.4	8	5.2	15	9.3	–20	1.0	0.9	8.5	15	2.01
Nash Finch	562.0**	10	1072.7	7	4.5	322	6.4	123	0.8	0.2	10.6	14	1.54
Richfood Holdings (8)	302.1	–15	508.4	–16	2.1	NM	3.8	NM	0.7	NM	8.7	21	0.35
Rykoff-Sexton (8)	360.4	7	703.8	8	2.1	62	2.7	–73	0.6	1.6	6.2	20	0.96
Super Food Services (4)	409.9**	5	816.1	6	3.4	5	7.0	6	0.8	0.8	14.3	13	1.54
Super Valu Stores (10)	3439.7	5	6083.1	5	41.4	1	84.9	8	1.2	1.3	17.0	14	1.97
Wetterau (9)	1400.0	8	2726.4	8	12.4	12	23.0	9	0.9	0.9	23.1	16	2.07
(b) FOOD PROCESSING													
GROUP COMPOSITE	**22033.8**	**15**	**42539.4**	**15**	**1097.5**	**19**	**1920.6**	**13**	**5.0**	**4.8**	**21.9**	**20**	**2.25**
American Maize-Products	129.4	–7	244.6	–5	4.7	–26	7.9	–23	3.6	4.5	7.0	13	1.56
Campbell Soup (5)	1519.5	4	3242.0	7	54.6	25	159.8	15	3.6	3.0	2.5	NM	0.36
Castle & Cooke	792.5	14	1450.4	15	38.9	11	57.0	20	4.9	5.1	12.4	20	1.76
ConAgra (7)	4014.3	35	7632.6	34	73.5	13	117.8	14	1.8	2.2	22.2	18	1.87
CPC International	1451.2	16	2806.0	11	95.0	14	173.9	15	6.5	6.6	33.0	18	4.54
Dean Foods (7)	552.2	26	1073.0	24	21.1	–5	34.3	–1	3.8	5.1	17.8	16	2.29
Dekalb Genetics (4)	84.0	0	220.2	9	2.1	–56	12.1	22	2.5	5.7	11.9	17	2.39
General Mills (7)	1707.7	19	3319.9	15	75.3	31	175.1	23	4.4	4.0	46.2	20	4.55
Gerber Products (9)	295.9	12	608.6	12	31.3	17	54.6	8	10.6	10.1	28.2	22	2.63
Heinz (H. J.) (8)	1694.2	4	3102.7	4	135.3	15	252.5	15	8.0	7.2	28.4	18	1.90
Hershey Foods	535.9	10	1217.1	15	65.8	163	112.9	74	12.3	5.2	19.2	16	2.43
Hormel (Geo. A.) (2)	633.1	20	1253.6	16	13.8	40	28.2	20	2.2	1.9	15.3	18	0.98
Hudson Foods (3)	184.1	4	330.1	3	4.4	–68	6.5	–63	2.4	7.6	8.5	13	0.72
IBP	2601.4	11	4975.4	9	15.8	85	20.2	103	0.6	0.4	9.1	18	0.96
Kellogg	1257.6	2	2466.4	4	135.7	5	232.0	–4	10.8	10.5	25.9	20	3.41
Lance	106.8	4	209.7	5	11.4	3	22.2	14	10.7	10.7	21.2	16	1.51
McCormick (1)	301.7	3	602.3	6	16.1	101	26.0	68	5.3	2.7	19.0	17	1.47
Pilgrim's Pride (3)	188.6	7	366.5	10	7.0	–48	11.8	–22	3.7	7.7	17.8	10	0.72
Pioneer Hi-Bred International (4)	670.7	10	801.8	8	144.8	26	124.8	–2	21.6	18.8	13.0	18	2.29
Ralston Purina (3)	1714.3	6	3428.8	7	92.4	10	184.0	5	5.4	5.2	53.9	17	5.76
Seneca Foods (5)	88.5	6	188.3	14	2.3	47	3.8	48	2.6	1.9	8.1	14	1.72
Smithfield Foods (8)	225.1	24	467.1	20	2.8	NM	7.5	50	1.3	NM	15.9	15	0.95
Smucker (J. M.) (8)	108.5	16	203.9	14	7.8	14	13.9	9	7.2	7.3	18.1	22	2.05
Tyson Foods (3)	978.7	61	1910.6	67	33.5	22	59.8	22	3.4	4.5	22.9	19	1.73
Universal Foods (3)	197.9	–10	417.6	–1	12.1	36	22.1	28	6.1	4.1	21.4	17	1.87
(c) FOOD RETAILING													
GROUP COMPOSITE	**27267.4**	**6**	**54533.1**	**7**	**277.9**	**47**	**552.2**	**49**	**1.0**	**0.7**	**33.7**	**24**	**0.96**
Albertson's (11)	2009.9	11	3949.9	7	51.2	15	111.5	16	2.5	2.4	21.2	23	1.52
American Stores (11)	5422.5	4	11564.6	9	27.9	30	81.1	94	0.5	0.4	9.8	18	3.69
Casey's General Stores (8)	118.7**	12	239.1	16	0.6	NM	2.6	368	0.5	NM	10.6	11	0.73

Footnotes on page 63

Equitable Agents are among he most highly trained in the usiness.

No company, including those vith larger agency forces, has so nany agents entitled to inscribe he prestigious Chartered Life Jnderwriter (CLU) and Chartered Financial Consultant (ChFC) lesignations after their names.*

These are no mere window-lressings. To earn them, our Agents have successfully completed a challenging course of study on everything from financial planning for individuals, business owners and professionals, to income taxation and estate planning.

Rigorous training such as this is representative of a company-wide commitment to education and excellence which has earned The Equitable's entire Agency Force a respected reputation for professionalism.

It's what makes our Agents singularly equipped to devise creative and sound financial programs to meet the complex needs of today's consumers.

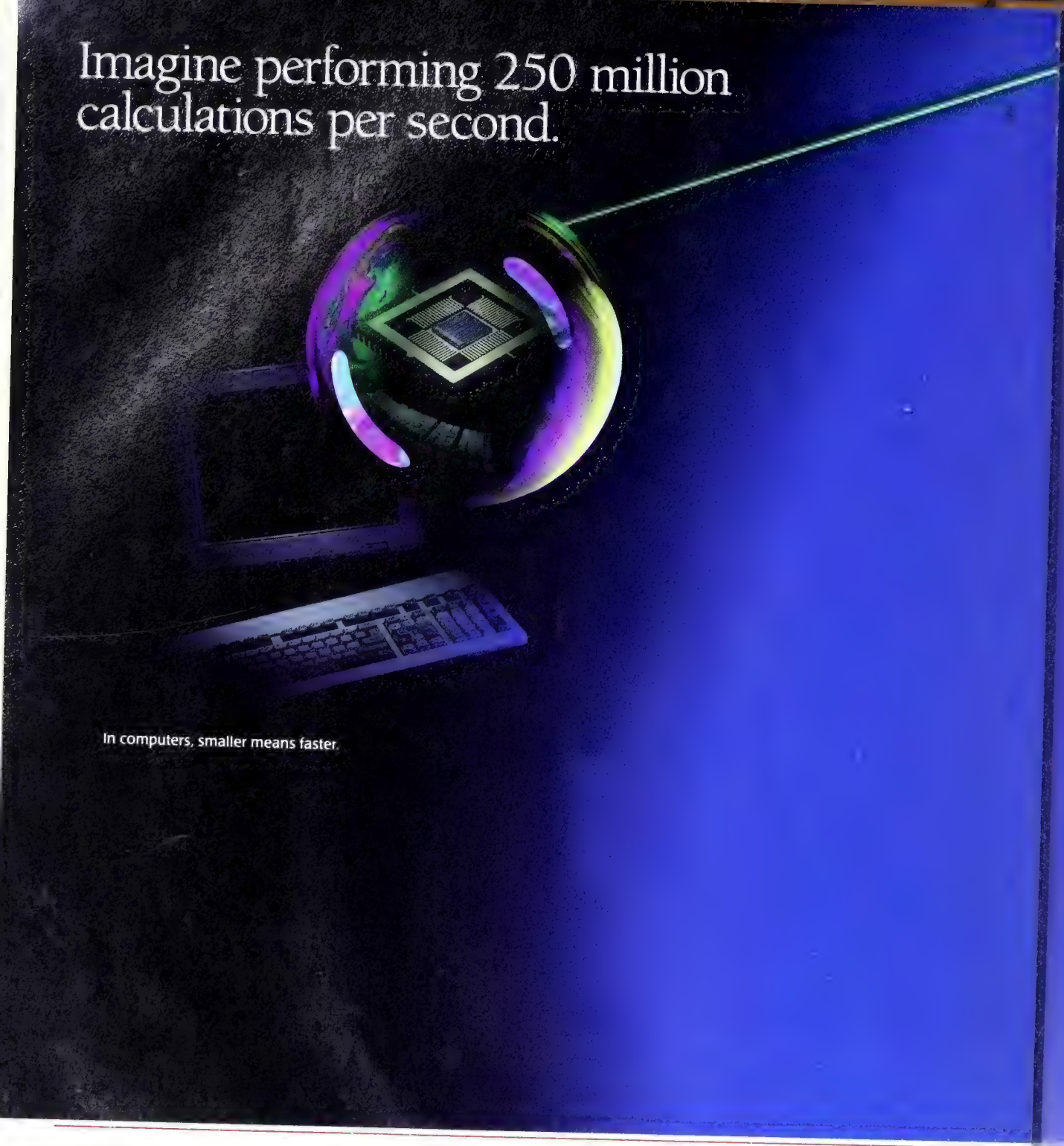
We at The Equitable don't just take pride in our commitment to professionalism; we stake our name on it.

THE EQUITABLE
WE HAVE GREAT PLANS FOR YOU.

HE EQUITABLE LIFE ASSURANCE SOCIETY OF THE UNITED STATES EQUITABLE VARIABLE LIFE INSURANCE COMPANY ALLIANCE CAPITAL MANAGEMENT CORPORATION QUITABLE REAL ESTATE INVESTMENT MANAGEMENT, INC. EQUITABLE CAPITAL MANAGEMENT CORPORATION DONALDSON, LUFKIN & JENRETTE, INC. SPROUT GROUP QUITABLE AGRIBUSINESS, INC. PENSION FINANCIAL MANAGEMENT GROUP EQUITABLE SEIMEI HOKEN-EQUITABLE OF JAPAN EQUICO SECURITIES, INC. THE EQUITABLE OF COLORADO, INC. WOOD, STRUTHERS & WINTHROP MANAGEMENT CORPORATION PERSHING DIVISION AUTRANET, INC.

04290 ©1990 The Equitable Life Assurance Society, NY, NY/Certain insurance products from Equitable Variable Life Insurance Co., NY, NY. nvestments and financial planning services from Equico Securities, Inc. *Records of The American College, September 15, 1989.

Imagine performing 250 million calculations per second.



In computers, smaller means faster.

Nestled amid a peaceful, wooded area outside Tokyo, scientists at the Hitachi Central Research laboratory venture into unexplored regions of technology on a daily basis.

It was here they made a historic breakthrough: A superconductive, microcomputer chip so advanced, it's decades ahead of the computers that will eventually use it.

This chip contains 22,000 Josephson junctions. These permit processing speeds that will make today's fastest computers seem as slow as aba in comparison.

Hitachi is proud of our efforts here. Whil many dropped from the race to master this co plex technology, we forged ahead.

This is another example of what happens you allow people to unleash their imaginatio Which is precisely what we do. As a US$45 b international corporation,* our imagination rur in numerous fields.

© 1990 Hitachi, Ltd. All rights reserved.

magine an elevator that runs as ast as a world-class sprinter.

In business, the battle goes to the swift.

communications. Medical equipment. Sci-
utomotive components. Our 20,000 prod-
ude everything from washing machines to
microscopes.
re even into elevators. Not ordinary lifts of
Our inverter-controlled elevators travel at
et per minute. That's more than five times fast-
nost. We've developed 1,800-feet-per-minute
s, too. So if you're headed up in your com-
tachi may soon help you get there in a hurry.

Perhaps more importantly, these computerized elevators know at what times traffic is heavy. On every floor.

So they anticipate where you want to be. Before you reach the elevator doors.

Imagine that.

*US$44,797 million; net sales for the year ending March 31, 1990. US$1=¥158

HITACHI

Hitachi, Ltd. Tokyo, Japan

CORPORATE SCOREBOARD

COMPANY	SALES 2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	SALES 6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	PROFITS 2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	PROFITS 6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	MARGINS 2ND QUARTER 1990 %	MARGINS 2ND QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 6-30	PRICE-EARNINGS RATIO 7-20	12 MONTHS EARNINGS PER SHARE
Dairy Mart Convenience Stores (11)	134.0*	7	267.7	7	0.2	NM	0.6	NM	0.2	NM	7.1	14	0.53
Eagle Food Centers (11)	281.6	3	589.0	7	2.7	5	5.8	23	1.0	0.9	17.3	13	0.94
Food Lion	1274.2	19	2475.5	19	40.8	28	78.0	28	3.2	3.0	26.4	32	0.48
Foodarama Supermarkets (2)	163.6	23	330.3	25	0.6	1	1.2	91	0.4	0.4	5.3	20	1.52
General Nutrition (11)	85.8	–4	191.8	–7	–4.9	NM	–11.7	NM	NM	7.6	NM	NA	NA
Giant Food (10)	769.3	6	1825.9	8	28.5	7	67.2	8	3.7	3.7	22.4	15	1.84
Great Atlantic & Pacific Tea (10)	3402.7	–1	5970.4	2	51.0	12	85.5	13	1.5	1.3	13.9	14	3.98
Hannaford Brothers	418.4**	12	812.3	13	12.2	14	22.0	15	2.9	2.9	17.8	20	2.03
Kroger	4742.4	7	9301.1	4	25.3	NM	15.0	NM	0.5	0.0	NM	87	0.19
Penn Traffic (11)	704.4**	37	1499.7	57	–12.3	NM	–20.0	NM	NM	NM	NM	NM	–5.94
Quality Food Centers	77.5	1	150.7	11	3.6	8	6.7	27	4.6	4.3	32.8	25	1.58
Ruddick (3)	357.7	6	710.6	9	6.4	8	12.4	20	1.8	1.7	13.9	12	2.41
Safeway	3435.1	5	6771.1	4	23.6	208	38.6	135	0.7	0.2	NM	69	0.23
Seaway Food Town (4)	136.0	6	276.5	8	1.1	70	1.3	–39	0.8	0.5	6.3	20	0.90
Smith's Food & Drug Centers	501.2	19	988.9	20	8.5	43	16.7	43	1.7	1.4	12.6	28	1.23
Supermarkets General Holding (11)	1524.0	1	3209.5	5	–21.5	NM	–23.3	NM	NM	NM	NM	NA	–86.84
Village Super Market (5)	168.5	4	342.5	4	0.7	–14	2.4	–5	0.4	0.5	9.0	10	1.45
Vons	1221.8	2	2433.5	2	10.4	NM	18.6	NM	0.9	NM	7.6	58	0.40
Weis Markets	318.4	3	632.4	4	21.2	3	40.2	–2	6.7	6.7	14.9	15	1.89
11 FUEL													
INDUSTRY COMPOSITE	**89545.4**	**3**	**183050.7**	**7**	**4252.5**	**0**	**8161.4**	**–17**	**4.8**	**4.9**	**10.4**	**20**	**2.56**
(a) COAL GROUP COMPOSITE	**719.4**	**11**	**1349.0**	**4**	**32.3**	**297**	**31.8**	**11**	**4.5**	**1.3**	**5.7**	**33**	**0.67**
Ashland Coal	112.0	40	202.2	29	7.8	62	14.7	32	7.0	6.0	20.9	14	1.70
Pittston	465.2**	13	876.6	5	19.3	371	9.2	–39	4.1	1.0	0.5	NM	–0.05
Westmoreland Coal	142.2	–8	270.1	–11	5.2	NM	7.9	200	3.6	NM	10.9	12	2.03
(b) OIL & GAS GROUP COMPOSITE	**85570.8**	**3**	**175557.5**	**7**	**3993.7**	**–2**	**7718.5**	**–19**	**4.7**	**4.9**	**10.3**	**19**	**2.72**
Amerada Hess	1232.8**	–16	2894.4	–2	–72.1	NM	–32.5	NM	NM	9.1	3.5	44	1.12
American Petrofina	832.6	–2	1728.9	10	53.8	29	80.0	18	6.5	4.9	10.1	11	6.98
Amoco	5989.0	–2	12392.0	3	379.0	–24	845.0	–12	6.3	8.1	10.9	18	2.93
Ashland Oil (3)	2113.5	0	4099.4	5	100.0	130	100.9	239	4.7	2.1	7.3	25	1.50
Atlantic Richfield	4035.0*	–7	8250.0	–1	391.0	–16	660.0	–44	9.7	10.8	21.6	14	8.57
Burlington Resources	425.6	2	939.4	10	51.4	67	119.9	45	12.1	7.4	5.9	34	1.27
Chevron	8900.0***	9	18300.0	15	648.0	60	1121.0	56	7.3	4.9	4.6	43	1.80
Diamond Shamrock	566.6	3	1151.2	13	12.2	–55	16.5	–61	2.2	4.9	10.8	20	1.17
Enron Oil & Gas	78.6	20	174.8	25	5.6	NM	16.8	NM	7.1	NM	2.7	NM	0.21
Exxon	23863.0**	9	48320.0	14	1100.0	11	2380.0	4	4.6	4.5	13.0	16	3.10
Holly (5)	107.4	21	216.4	29	1.9	–69	6.1	–50	1.7	6.8	211.5	11	2.44
Kerr-McGee	845.8	3	1657.6	8	30.1	–14	57.2	–17	3.6	4.3	7.7	21	2.30
Louisiana Land & Exploration	203.9**	0	427.3	7	6.4	–23	19.7	–32	3.1	4.1	8.9	33	1.34
Mapco	606.7*	13	1243.1	24	41.4	46	78.1	22	6.8	5.3	41.5	12	3.84
Mitchell Energy & Development (11)	160.5	1	359.8	16	6.7	10	17.9	61	4.2	3.8	5.3	28	0.66
Mobil	13820.0***	–2	28853.0	3	498.0	24	898.0	8	3.6	2.9	11.8	14	4.51
Murphy Oil	436.9**	0	896.5	9	28.5	70	46.5	101	6.5	3.9	8.9	21	2.06
Occidental Petroleum	5100.0	1	10259.0	1	69.0	–18	179.0	12	1.4	1.7	4.2	27	0.95
Oryx Energy	378.0**	24	847.0	39	–3.0	NM	37.0	9	NM	5.6	3.8	90	0.54
Pennzoil	551.1	–19	1104.3	–12	4.8	–96	37.4	78	0.9	16.9	7.4	31	2.57
Phillips Petroleum	2859.0	–12	5975.0	–5	105.0	–47	126.0	–67	3.7	6.0	–1.8	NM	–0.17
Sun	2890.0***	–1	6000.0	8	115.0	10	156.0	–16	4.0	3.6	2.1	60	0.63
Texaco	8721.0**	3	17877.0	–1	353.0	–4	681.0	–63	4.0	4.3	15.0	14	4.34
Tosco	577.5	73	1054.7	73	48.2	72	41.2	106	8.3	8.4	43.3	7	2.82
Valero Energy	276.3	22	536.7	26	19.9	7	29.6	–1	7.2	8.2	6.3	17	0.88
(c) PETROLEUM SERVICES GROUP COMPOSITE	**3255.2**	**10**	**6144.2**	**7**	**226.5**	**40**	**411.0**	**43**	**6.8**	**5.5**	**11.8**	**29**	**1.50**
Baker Hughes (3)	711.6	21	1312.5	13	38.0	141	68.3	117	5.3	2.7	9.4	30	0.98
Dresser Industries (2)	1052.6	4	1926.2	3	40.1	18	59.9	7	3.8	3.3	10.2	22	2.47
Grace Energy	112.8**	27	226.8	23	2.1	–67	8.0	–36	1.9	7.4	3.4	23	0.77
Schlumberger	1292.1	8	2513.8	6	144.8	37	273.3	46	11.2	8.8	17.1	30	2.13
Smith International	86.1**	15	164.9	13	1.5	351	1.6	NM	1.8	0.5	–3.4	NM	–0.10
12 HEALTH CARE													
INDUSTRY COMPOSITE	**32853.3**	**13**	**65705.8**	**12**	**3435.8**	**22**	**6349.2**	**8**	**10.5**	**9.7**	**23.3**	**23**	**2.34**
(a) DRUG DISTRIBUTION GROUP COMPOSITE	**8131.8**	**12**	**16660.9**	**12**	**144.4**	**9**	**337.9**	**3**	**1.8**	**1.8**	**15.6**	**17**	**1.90**
Arbor Drugs (5)	82.8	12	173.3	12	2.3	15	5.9	16	2.7	2.7	18.1	17	1.13
Bergen Brunswig (4)	1141.9**	16	2229.2	14	17.8	32	33.2	33	1.6	1.4	14.1	16	1.75
Big B (11)	122.9	16	255.6	36	0.4	–82	1.2	–73	0.3	2.1	2.7	42	0.25
Cardinal Distribution (9)	242.1	19	481.7	20	3.3	40	7.6	41	1.4	1.2	11.0	21	1.32
Drug Emporium (10)	141.1	24	278.5	23	1.8	4	4.5	–7	1.3	1.5	15.5	16	0.64
Durr-Fillauer Medical	205.0	18	405.8	18	4.1	20	7.7	24	2.0	2.0	14.0	16	1.58
Eckerd (Jack) (11)	843.5	12	1834.5	15	2.1	–38	23.9	–15	0.2	0.4	NM	NA	NA

Footnotes on page 63

Now you can afford to upgrade every trip.

For about what you're paying now, you could be staying in a hotel that was made for you. Embassy Suites® hotels. Each of our rooms is a two-room suite, so you can spread out and work or stretch out and relax. And each suite comes with a free, cooked-to-order breakfast each morning (everything from pancakes to muffins to cereals and fresh fruit) and two hours of complimentary beverages+ each evening. If you're looking for more from your hotel, call us. We think you'll find we were made for each other.

EMBASSY SUITES HOTELS℠

We were made for each other.℠

In Canada
800-458-5848
In Mexico
800-362-2779

Call 1-800-EMBASSY
or your travel agent.

+ Subject to state and local laws.
GARFIELD © 1978 United Feature Syndicate, Inc.

CORPORATE SCOREBOARD

COMPANY	SALES 2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	SALES 6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	PROFITS 2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	PROFITS 6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	MARGINS 2ND QUARTER 1990 %	MARGINS 2ND QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 6-30	PRICE-EARNINGS RATIO 7-20	12 MONTH EARNIN PER SHAR
Fay's (11)	153.2	17	314.9	12	1.5	9	5.0	–19	1.0	1.0	15.4	14	0.65
Genovese Drug Stores (11)	128.6	13	239.0	8	1.1	–6	1.7	–54	0.8	1.0	7.5	20	0.40
Longs Drug Stores (11)	537.4	9	1142.0	10	14.8	3	33.7	7	2.8	2.9	17.9	13	3.0
McKesson (9)	2022.6**	11	4112.5	11	25.9	8	44.2	–11	1.3	1.3	16.3	15	2.2
Perry Drug Stores (2)	158.4	–1	337.5	–2	0.6	–16	3.6	–26	0.4	0.5	10.7	17	0.57
Rite Aid (10)	830.5	10	1688.1	7	25.2	8	60.2	3	3.0	3.1	11.9	18	2.0
Walgreen (4)	1521.8	13	3168.4	12	43.6	13	105.5	10	2.9	2.9	18.9	19	2.7
(b) DRUGS & RESEARCH													
GROUP COMPOSITE	**13036.2**	**15**	**25894.5**	**13**	**2233.3**	**20**	**4557.9**	**18**	**17.1**	**16.4**	**27.7**	**23**	**2.66**
Allergan	221.2	5	416.3	7	17.1	–27	30.7	–25	7.7	11.2	9.8	NA	NA
American Home Products	1605.1	1	3418.5	3	270.4	13	584.8	13	16.8	15.1	53.7	14	3.7
Bristol-Myers Squibb	2484.0	11	4942.0	10	417.0	21	826.0	20	16.8	15.4	17.0	38	1.68
Carter-Wallace (9)	153.4	11	298.0	11	14.4	6	24.1	7	9.4	9.8	14.8	17	3.3
Genentech	107.4**	14	211.2	17	5.3	–45	18.6	9	4.9	10.2	9.1	54	0.52
Lilly (Eli)	1225.4	24	2466.0	21	274.4	26	615.2	23	22.4	22.0	25.6	24	3.56
Marion Merrell Dow	629.0	141	1207.0	139	130.0	83	241.0	91	20.7	27.2	34.8	67	0.4
Merck	1899.4	20	3657.8	16	470.2	19	874.0	19	24.8	25.0	46.7	22	4.1
Pfizer	1495.7	15	2977.7	9	151.2	11	403.1	7	10.1	10.4	14.9	17	4.2
Schering-Plough	864.0	7	1729.1	6	144.1	20	294.5	20	16.7	15.0	25.2	22	2.3
Syntex (5)	390.3	12	733.0	[illegible]	90.7	21	162.7	3	23.2	21.5	43.4	22	2.8
Upjohn	806.5	10	1583.2	7	114.1	21	228.3	15	14.1	13.0	25.5	24	1.8
Warner-Lambert	1154.8	13	2254.8	10	134.5	20	254.8	19	11.6	11.0	38.9	20	3.3
(c) HEALTH CARE SERVICES													
GROUP COMPOSITE	**3536.0**	**6**	**7073.3**	**8**	**214.8**	**184**	**403.8**	**83**	**6.1**	**2.3**	**16.9**	**16**	**1.7**
Beverly Enterprises	520.8	–1	1022.7	–1	3.3	NM	4.0	NM	0.6	NM	1.5	58	0.1
Community Psychiatric Centers (1)	101.2	15	184.2	12	23.9	16	42.7	11	23.7	23.3	18.8	18	1.6
Hillhaven (7)	289.4**	8	574.7	10	0.3	268	0.8	NM	0.1	0.0	1.2	NA	N
Humana (4)	1271.7	19	2464.2	19	85.3	18	161.1	20	6.7	6.8	21.1	16	2.9
Manor Care (7)	185.2	9	358.9	12	7.4	29	12.4	13	4.0	3.4	12.3	21	0.6
National Health Laboratories	127.4	28	249.5	29	21.5	26	41.4	26	16.9	17.1	20.9	22	0.7
National Medical Enterprises (7)	888.7**	–10	1901.1	–1	69.5	27	132.3	27	7.8	5.5	19.7	13	3.0
Universal Health Services	151.5	3	318.1	6	3.5	20	9.1	23	2.3	2.0	6.8	13	0.7
(d) MEDICAL PRODUCTS													
GROUP COMPOSITE	**8149.3**	**14**	**16077.2**	**14**	**843.2**	**13**	**1049.6**	**–29**	**10.3**	**10.4**	**18.2**	**26**	**1.9**
Abbott Laboratories	1503.4	14	2941.8	13	240.2	13	465.2	13	16.0	16.1	33.3	22	2.0
Bard (C. R.)	194.1	3	389.3	–2	10.1	–54	19.3	–55	5.2	10.8	13.3	20	0.7
Bausch & Lomb	352.5	11	667.1	12	31.5	15	54.0	16	8.9	8.6	16.8	18	4.0
Baxter International	2003.0	8	3906.0	8	110.0	6	–273.0	NM	5.5	5.6	–3.1	NM	–0.4
Becton, Dickinson (3)	496.6	12	1017.3	12	46.7	20	92.2	14	9.4	8.8	15.7	16	4.4
Johnson & Johnson	2825.0	18	5663.0	17	353.0	19	597.0	–3	12.5	12.4	24.8	23	3.2
Medtronic (8)	236.7	20	444.1	15	31.1	22	58.1	18	13.1	12.9	20.7	20	4.0
Mine Safety Appliances	118.2	16	230.1	13	7.9	10	14.3	8	6.7	7.1	11.2	13	4.3
Owens & Minor	300.7	37	593.3	43	2.0	NM	3.5	290	0.7	0.0	6.5	23	0.6
U. S. Surgical	119.2	38	225.1	36	10.8	13	19.1	23	9.0	11.0	18.1	34	1.4
13 **HOUSING & REAL ESTATE**													
INDUSTRY COMPOSITE	**8160.7**	**4**	**15859.1**	**4**	**451.0**	**–8**	**698.7**	**–11**	**5.5**	**6.2**	**21.5**	**12**	**2.2**
(d) BUILDING MATERIALS													
GROUP COMPOSITE	**6630.3**	**2**	**12902.6**	**3**	**413.0**	**–7**	**630.9**	**–10**	**6.2**	**6.8**	**23.8**	**12**	**2.3**
Ameron (1)	116.5	12	205.3	8	4.3	–4	3.4	–30	3.7	4.3	9.7	14	3.2
Barnes Group	141.1	5	282.3	7	4.7	–23	8.4	–12	3.3	4.5	9.6	16	1.7
CalMat	162.4**	8	310.6	6	11.8	31	22.2	–27	7.3	9.7	13.7	16	2.2
De Soto	124.9	3	234.5	7	3.9	NM	6.4	300	3.1	0.2	–6.1	NM	–1.3
Hughes Supply (11)	138.0	9	269.1	7	1.7	–14	1.8	–61	1.2	1.6	6.7	11	1.2
Lafarge	429.8	9	669.2	11	29.4	–23	–11.0	NM	6.8	9.6	9.4	12	1.3
Manville	561.1	–1	1079.0	1	52.6	16	77.5	–3	9.4	8.0	30.7	6	1.2
Noland	113.9	–6	219.5	–3	1.6	–9	2.4	6	1.4	1.4	5.3	14	1.4
Owens-Corning Fiberglas	771.0	7	1519.0	10	39.0	–29	72.0	–19	5.1	7.6	NM	6	3.6
PPG Industries	1571.5	5	3049.9	3	141.0	1	266.3	4	9.0	8.5	20.4	12	4.3
RPM (7)	126.0	30	227.3	27	6.4	22	9.3	21	5.0	5.4	17.5	18	1.2
Sherwin-Williams	611.4	5	1110.8	6	44.9	16	54.9	16	7.3	6.6	17.3	15	2.6
Southdown	150.8**	–6	279.8	–3	8.0	116	14.3	93	5.3	2.3	6.9	19	1.4
Tecumseh Products	364.1	–13	774.8	8	11.2	–56	27.0	–43	3.1	6.1	9.0	10	11.4
Texas Industries (7)	170.5**	7	645.7	–7	–0.2	NM	–8.0	NM	NM	3.4	–3.9	NM	–0.8
TJ International	98.2	3	172.6	6	5.3	–11	6.9	–12	5.4	6.2	15.4	12	1.9
USG	533.0	–7	1063.0	–4	1.0	–89	9.0	–10	0.2	1.6	NM	8	0.4
Valspar (2)	150.3	13	262.5	12	6.7	2	9.8	7	4.5	5.0	20.7	18	2.1
Vulcan Materials	295.7	1	527.7	3	39.7	–9	58.3	–2	13.4	14.8	20.4	13	3.3
(b) CONSTRUCTION & REAL ESTATE													
GROUP COMPOSITE	**1530.4**	**11**	**2956.5**	**10**	**38.0**	**–22**	**67.8**	**–19**	**2.5**	**3.5**	**12.3**	**10**	**1.5**
Blount (10)	170.8**	5	326.4	21	1.2	–39	3.5	–30	0.7	1.1	10.9	7	1.4
Centex (9)	565.9**	22	1122.6	18	16.5	8	32.1	13	2.9	3.3	14.1	9	4.0
Champion Enterprises (10)	80.8	–7	145.4	–11	0.7	NM	–7.1	NM	0.9	NM	–52.3	NM	–1.7

Footnotes on page 63

Intergraph Lets You Cross That Bridge When You Get To It.

At Intergraph we've spent the last 20 years helping companies span the chasm between the present and the future. Between what's necessary today and needed tomorrow.

We can do the same for you. With the most advanced interactive graphics workstations and software in the world. Products for electronic and mechanical design, engineering, and manufacturing; mapping and GIS; architectural engineering and construction; land-use planning; and electronic publishing. Products for hundreds of applications in private industry and government.

No matter where you're going, Intergraph will get you there. Give us a call toll free at 1-800-826-3515. Because there are more bridges to cross.

INTERGRAPH

Everywhere you look.

CORPORATE SCOREBOARD

COMPANY	SALES 2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	PROFITS 2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	MARGINS 2ND QUARTER 1990 %	MARGINS 2ND QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 6-30	PRICE-EARNINGS RATIO 7-20	12 MONTH EARNINGS PER SHARE
Forest City Enterprises (11)	85.0**	8	182.1	6	–0.9	NM	3.9	–38	NM	0.4	3.4	71	0.5
Grubb & Ellis	84.6**	–8	161.5	–4	–1.8	NM	–4.7	NM	NM	0.4	–3.4	NM	–0.1
Kaufman & Broad Home (1)	351.5**	35	670.2	49	15.1	–24	28.5	–10	4.3	7.7	38.9	4	2.3
Lennar (1)	86.5**	–18	168.0	–12	3.7	–42	7.0	–43	4.3	6.1	8.7	8	2.2
Skyline (7)	105.2	–3	180.3	–5	3.5	–36	4.6	–46	3.3	5.1	6.2	17	0.8
14 LEISURE TIME INDUSTRIES													
INDUSTRY COMPOSITE	**14598.1**	**7**	**28418.6**	**7**	**887.0**	**–2**	**1598.7**	**2**	**6.1**	**6.7**	**14.2**	**22**	**1.6**
(a) **EATING PLACES**													
GROUP COMPOSITE	**2907.6**	**9**	**5663.5**	**9**	**279.3**	**10**	**473.5**	**7**	**9.6**	**9.5**	**22.8**	**18**	**1.7**
Bob Evans Farms (8)	116.8	12	231.4	10	6.6	–6	12.5	–17	5.6	6.7	12.6	16	0.8
Collins Foods International (8)	135.2**	8	299.5	5	8.3	13	16.0	13	6.1	5.9	12.7	15	1.3
International Dairy Queen (1)	83.5**	12	141.2	12	8.0	11	12.0	15	9.5	9.7	32.6	22	2.6
Karcher (Carl) Enterprises (11)	156.5	5	274.0	5	5.3	–7	–3.6	NM	3.4	3.8	7.7	30	0.2
Luby's Cafeterias (4)	81.5	9	154.5	10	9.0	11	15.9	9	11.0	10.8	17.7	18	1.7
McDonald's	1701.3**	10	3234.4	10	215.8	10	373.9	11	12.7	12.7	22.5	17	2.0
Morrison (7)	235.6**	2	463.1	6	7.8	–9	15.1	–13	3.3	3.7	17.1	14	1.7
Shoney's (2)	224.4**	11	482.9	11	8.5	56	13.3	57	3.8	2.7	NM	25	0.6
Sizzler Restaurants International (8)	80.5	7	175.9	7	5.7	–3	10.7	2	7.1	7.8	14.8	15	1.3
Vicorp Restaurants (2)	92.3	12	206.6	11	4.4	96	7.7	88	4.7	2.7	12.4	22	1.2
(b) **ENTERTAINMENT**													
GROUP COMPOSITE	**4065.3**	**15**	**7923.4**	**16**	**290.4**	**20**	**557.5**	**30**	**7.1**	**6.9**	**11.6**	**26**	**2.0**
Aztar	131.3	–7	256.4	–1	–21.7	NM	–15.9	NM	NM	NM	–11.6	NM	–0.9
Blockbuster Entertainment	149.0	68	288.1	74	14.8	84	28.3	83	10.0	9.1	25.7	32	0.7
Commtron (4)	144.4**	12	261.1	3	2.3	39	4.1	31	1.6	1.3	15.3	9	0.8
Disney (Walt) (3)	1539.5	32	2843.3	29	238.4	23	416.9	22	15.5	16.6	24.5	22	5.8
King World Productions (4)	81.2	12	183.6	10	14.2	23	32.1	14	17.5	16.0	62.7	11	2.1
MCA	949.9**	15	1862.9	22	44.8	1	76.4	8	4.7	5.3	13.2	15	3.3
MGM/UA Communications (4)	148.4	–45	325.2	–36	–21.1	NM	–31.0	NM	NM	NM	–15.8	NM	–0.9
Orion Pictures (10)	110.1	15	246.7	–15	–2.5	NM	4.1	–65	NM	3.1	4.5	40	0.3
Paramount Communications (2)	811.5	16	1656.1	13	21.2	NM	42.4	563	2.6	NM	1.3	NM	0.3
(c) **HOTEL & MOTEL**													
GROUP COMPOSITE	**2930.3**	**9**	**5715.7**	**9**	**145.9**	**–19**	**252.2**	**–14**	**5.0**	**6.7**	**24.0**	**19**	**1.8**
Caesars New Jersey (5)	80.2	0	152.9	–3	7.5	0	12.0	–9	9.4	9.3	15.5	11	2.0
Caesars World (5)	217.9	–2	420.8	–3	10.5	–40	11.9	–57	4.8	7.8	18.1	10	1.8
Circus Circus Enterprises (11)	133.3	5	251.8	4	19.2	1	31.6	3	14.4	14.9	59.6	26	2.6
Golden Nugget	207.6	218	415.7	261	16.0	NM	33.3	NM	7.7	NM	10.1	NM	0.3
Hilton Hotels	273.8**	3	539.1	10	38.2	–9	63.3	15	14.0	15.9	13.2	21	2.4
Marriott	1764.0	4	3448.0	4	46.0	–16	74.0	–20	2.6	3.2	33.3	14	1.5
Promus	253.5	7	487.4	7	8.5	–82	26.2	–63	3.4	20.2	47.4	NA	N/
(d) **OTHER LEISURE**													
GROUP COMPOSITE	**4694.8**	**–1**	**9116.0**	**–1**	**171.4**	**–26**	**315.5**	**–23**	**3.7**	**4.9**	**8.6**	**22**	**0.9**
American Greetings (10)	311.2**	7	653.9	7	19.3	10	38.2	20	6.2	6.0	12.2	15	2.3
Anthony Industries	98.3	–1	192.5	2	2.1	-37	3.4	–36	2.2	3.4	14.6	8	1.3
Bally Mfg.	553.6**	7	1104.8	7	5.9	–73	13.4	–60	1.1	4.1	0.3	NM	–0.0
Brunswick	670.4	–13	1356.0	–13	19.5	–5	34.2	–9	2.9	2.7	–9.5	NM	–0.8
Carnival Cruise Lines (1)	352.5	24	611.9	18	54.6	31	79.8	–9	15.5	14.6	20.6	17	1.3
Coachmen Industries	80.5	–8	156.8	–12	0.5	NM	0.6	–74	0.7	NM	–6.0	NM	–0.5
Fleetwood Enterprises (8)	431.6	1	779.0	1	17.1	–3	26.2	–13	4.0	4.2	13.4	10	2.4
Harley-Davidson	249.7	14	467.3	15	16.1	52	28.1	52	6.4	4.8	24.9	13	2.4
Hasbro	277.3	–8	578.4	–2	8.7	–52	28.2	–24	3.1	6.0	10.3	12	1.4
Huffy	148.1	16	276.9	14	7.1	33	13.1	36	4.8	4.2	18.0	11	2.0
Johnson Worldwide (3)	82.0	28	173.2	25	6.5	25	14.7	21	7.9	8.1	18.3	14	2.0
Mattel	318.0	17	552.0	18	20.3	22	28.7	37	6.4	6.1	33.7	12	1.7
Outboard Marine (3)	310.7	–24	619.9	–24	–15.0	NM	–20.6	NM	NM	3.0	–6.1	NM	–1.9
Polaroid	475.6	–2	911.8	–2	32.9	–23	64.7	–6	6.9	8.8	57.7	19	1.9
Tonka	146.3	–23	282.2	–20	–19.0	NM	–29.3	NM	NM	0.1	–9.3	NM	–0.3
Wherehouse Entertainment (11)	99.5	23	229.0	21	–1.1	NM	1.3	NM	NM	NM	NM	NA	N/
Winnebago Industries (4)	89.7	-21	170.3	–23	–4.0	NM	–9.4	NM	NM	0.3	–21.2	NM	–1.0
15 MANUFACTURING													
INDUSTRY COMPOSITE	**24294.0**	**5**	**46982.3**	**6**	**1310.9**	**–4**	**2349.4**	**–6**	**5.4**	**5.9**	**14.2**	**16**	**2.7**
(a) **GENERAL MANUFACTURING**													
GROUP COMPOSITE	**9413.7**	**7**	**18265.0**	**6**	**693.3**	**7**	**1265.2**	**2**	**7.4**	**7.4**	**17.7**	**17**	**2.7**
Avery International (1)	469.9	5	901.3	5	21.1	–12	41.5	–7	4.5	5.4	15.1	13	1.8
Bic	91.6	–4	170.9	–3	7.1	–7	13.1	–7	7.8	8.0	11.3	15	1.8
Corning	678.0	17	1281.2	15	66.9	–4	113.6	3	9.9	12.0	15.0	16	2.7
Crane	380.4	–1	732.5	0	16.1	0	29.6	10	4.2	4.2	20.4	14	1.8
Federal Signal	116.1	11	219.5	11	7.8	35	13.1	25	6.7	5.5	19.7	16	1.6
Furon (11)	88.0	3	167.6	11	3.2	27	7.0	62	3.7	3.0	16.1	11	1.6
Harsco	451.3	27	839.8	16	22.0	NM	35.0	NM	4.9	NM	11.4	14	1.7
Hexcel	110.2	–1	217.0	2	1.7	-51	2.9	–41	1.5	3.1	1.3	59	0.2
Hillenbrand Industries (1)	278.5	8	557.8	13	20.4	0	40.3	11	7.3	8.0	18.1	20	2.1

Footnotes on page 63

You Paid More For This Magazine Than You'll Probably Pay For Your Financing.

0%

Financing Now Available
At Your Jeep® and Eagle Dealer.

Jeep Cherokee Limited

$1000 CASH BACK OR **0%** A.P.R. FINANCING*

Now, you can choose from 0% financing or $1000 cash back on the legendary Jeep Cherokee, named "Best of the Best" by *4-Wheel & Off-Road* magazine.

Eagle Premier ES Limited

$2000 CASH BACK OR **0%** A.P.R. FINANCING*

For a limited time, you can save on the European-inspired Eagle Premier ES Limited, with the most room of any car in its class.**

Jeep
Eagle

Advantage: Jeep® and Eagle

7/70 Limited warranty. See dealer for details. Deductibles and restrictions apply. *Cash back direct from Chrysler. Short-term financing for qualified buyers through Chrysler Credit Corporation. Other rates available as length of contract increases. Limited time offer. See dealer for details. For more information on Jeep or Eagle vehicles, call 1-800-JEEP-EAGLE. **Comparisons based on 1990 published competitive material. Jeep is a registered trademark of Chrysler Corporation. Buckle up for safety.

CORPORATE SCOREBOARD

COMPANY	SALES 2ND QUARTER 1990 $ MIL	SALES CHANGE FROM 1989 %	SALES 6 MONTHS 1990 $ MIL	SALES CHANGE FROM 1989 %	PROFITS 2ND QUARTER 1990 $ MIL	PROFITS CHANGE FROM 1989 %	PROFITS 6 MONTHS 1990 $ MIL	PROFITS CHANGE FROM 1989 %	MARGINS 2ND QUARTER 1990 %	MARGINS 2ND QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 6-30	PRICE-EARNINGS RATIO 7-20	12 MONTH EARNING PER SHARE
Illinois Tool Works	652.6	14	1220.3	14	49.9	12	90.5	11	7.6	7.8	17.8	17	3.21
Keystone International	113.0	21	215.4	20	11.4	27	21.4	24	10.1	9.7	20.1	23	1.22
Mark IV Industries (10)	223.9	3	422.6	1	7.3	1	12.0	2	3.3	3.3	16.5	7	1.83
Minnesota Mining & Mfg.	3234.0	7	6398.0	6	342.0	5	677.0	5	10.6	10.8	22.6	16	5.73
Newell	262.0	–5	519.9	–5	22.0	28	46.1	48	8.4	6.2	21.4	19	1.66
Oneida (11)	105.9	0	197.5	–4	2.0	–65	4.1	–51	1.9	5.4	10.7	12	1.12
Philips Industries (9)	247.2	–3	466.8	–7	13.1	–16	–32.2	NM	5.3	6.1	–6.3	NM	–0.53
Rubbermaid	345.9	4	705.4	3	32.5	15	65.6	14	9.4	8.5	19.9	26	1.69
Sealed Air	103.0	4	204.5	5	3.1	NM	5.9	20	3.0	NM	NM	29	0.95
Teleflex	116.1**	28	225.3	24	7.6	6	14.9	6	6.6	8.0	16.6	14	2.52
Town & Country (10)	99.8	–5	192.5	–3	0.2	–69	3.0	299	0.2	0.7	6.9	10	0.52
Tredegar Industries	148.8	–10	296.4	–8	–2.4	NM	–1.7	NM	NM	4.0	2.1	38	0.31
Trinova	500.8	1	986.4	1	17.8	–24	32.3	–25	3.6	4.7	3.7	34	0.76
United Dominion Industries	382.0	7	697.4	4	15.1	–12	20.4	–22	3.9	4.8	5.1	23	0.63
Valmont Industries	214.6	8	429.1	10	5.4	–11	9.8	–4	2.5	3.0	19.5	12	1.73
(b) MACHINE & HAND TOOLS													
GROUP COMPOSITE	**1849.2**	**5**	**3658.3**	**6**	**106.7**	**–1**	**204.0**	**–4**	**5.8**	**6.2**	**14.9**	**13**	**2.28**
Cincinnati Milacron	204.8	7	395.4	4	3.1	–29	5.6	–47	1.5	2.3	6.0	33	0.53
Clark Equipment	343.9	–3	729.7	9	15.3	–7	31.1	3	4.5	4.6	12.3	11	3.81
Danaher	203.0**	2	383.6	–3	11.5	–8	22.2	–7	5.7	6.3	22.3	12	1.90
Kennametal (6)	156.4	26	317.8	28	8.9	3	19.6	8	5.7	7.0	14.4	11	3.08
Snap-on Tools	239.5**	6	479.9	5	27.2	–1	58.3	–1	11.3	12.1	17.4	13	2.54
SPX	202.8	24	369.0	13	10.0	32	14.1	–8	4.9	4.6	10.9	19	1.56
Stanley Works	498.9	2	983.0	1	30.6	–1	53.1	–4	6.1	6.3	16.8	13	2.67
(c) SPECIAL MACHINERY													
GROUP COMPOSITE	**10513.5**	**6**	**20168.4**	**9**	**480.7**	**–14**	**897.3**	**–8**	**4.6**	**5.7**	**13.1**	**15**	**3.14**
Allied Products	129.0	–18	290.8	–8	0.8	–11	4.7	–18	0.6	0.6	–24.1	NM	–4.90
Applied Materials (2)	143.1	17	281.9	23	10.5	–25	21.6	–21	7.3	11.3	16.4	13	2.71
Applied Power (4)	113.6	100	223.6	102	5.2	–23	9.9	–11	4.5	11.8	19.1	15	1.45
Caterpillar	2947.0	–3	5884.0	3	46.0	–67	145.0	–49	1.6	4.6	8.0	15	3.55
Commercial Intertech (2)	111.0	1	210.5	0	4.3	31	9.9	–2	3.9	5.6	22.7	11	1.84
Deere (2)	2120.0**	11	3760.2	14	144.0	10	222.5	24	6.8	6.8	14.3	14	5.61
Dover	561.7	2	1090.3	2	42.3	0	78.6	6	7.5	7.7	19.8	16	2.39
FMC	987.2	8	1800.7	3	54.8	–1	92.8	4	5.6	6.1	NM	8	4.43
Goulds Pumps	142.4	8	267.6	9	8.8	11	15.2	–1	6.2	6.0	16.2	18	1.40
Graco	78.9	–1	147.1	0	4.6	20	7.1	15	5.8	4.7	19.7	11	2.13
Harnischfeger Industries (2)	441.6	25	863.2	28	17.6	35	32.2	46	4.0	3.7	11.6	9	1.98
Ingersoll-Rand	932.0	3	1834.3	7	53.9	3	99.5	7	5.8	5.8	14.3	15	3.93
Nordson (2)	88.6	21	166.1	20	7.3	–25	14.0	–21	8.2	13.1	26.1	14	3.15
Pentair	294.9	–3	581.3	0	7.0	–32	12.7	–34	2.4	3.4	12.8	11	2.31
Stewart & Stevenson Services (11)	143.7	13	333.8	25	7.2	10	15.6	14	5.0	5.2	17.2	19	1.94
Terex	287.2	134	553.5	145	5.8	9	10.1	13	2.0	4.4	22.4	11	2.00
Timken	435.9	5	844.4	–1	25.4	–16	44.5	–23	5.8	7.3	3.9	23	1.31
Tyco Laboratories (7)	556.0	3	1035.2	0	35.2	41	61.5	31	6.3	4.7	20.8	21	2.90
(d) TEXTILES													
GROUP COMPOSITE	**2517.5**	**–2**	**4890.5**	**–1**	**30.2**	**–36**	**–17.0**	**NM**	**1.2**	**1.8**	**1.5**	**13**	**1.53**
Albany International	134.0	3	265.0	7	3.7	–71	6.2	–72	2.8	9.9	12.4	13	1.11
Fieldcrest Cannon	316.3	–9	590.7	–8	–6.1	NM	–5.7	NM	NM	2.2	2.5	19	0.69
Horizon Industries (3)	79.7	2	156.2	6	–0.5	NM	–1.4	NM	NM	2.1	–2.8	NM	–0.25
Interface	151.2	7	305.7	6	6.2	12	12.3	10	4.1	3.9	15.8	13	1.49
Salem Carpet Mills	118.3**	9	230.6	16	1.0	–58	1.5	–52	0.8	2.2	6.9	7	0.57
Shaw Industries (6)	427.0	29	822.4	34	21.8	26	36.7	37	5.1	5.2	29.9	14	2.11
Springs Industries	485.4	–1	944.6	–2	10.7	36	18.2	–43	2.2	3.4	8.6	11	2.86
Unifi (6)	107.5	–6	206.2	–5	8.9	2	15.5	7	8.3	7.6	18.5	12	1.32
Wickes (11)	698.2	–17	1369.2	–16	–15.5	NM	–100.2	NM	NM	NM	–15.7	NA	NA
16 METALS & MINING													
INDUSTRY COMPOSITE	**14173.8**	**–4**	**27251.4**	**–6**	**832.2**	**–36**	**1576.4**	**–34**	**5.9**	**9.0**	**13.0**	**13**	**2.44**
(a) ALUMINUM													
GROUP COMPOSITE	**5831.3**	**–4**	**11364.5**	**–3**	**382.1**	**–36**	**692.2**	**–38**	**6.6**	**9.7**	**14.9**	**8**	**6.29**
Aluminum Co. of America	2691.4	–2	5327.7	–1	161.9	–43	310.5	–45	6.0	10.3	13.4	8	7.89
Amax	984.7	–9	1912.6	–7	56.9	–57	106.9	–56	5.8	12.1	10.5	10	2.54
Maxxam	610.0	6	1182.3	3	60.3	126	94.1	179	9.9	4.6	66.5	3	18.89
Reynolds Metals	1545.2**	–8	2941.9	–6	103.0	–32	180.7	–34	6.7	9.0	15.9	9	7.41
(b) STEEL													
GROUP COMPOSITE	**5394.6**	**–9**	**10522.8**	**–12**	**123.1**	**–69**	**280.9**	**–57**	**2.3**	**6.7**	**6.5**	**19**	**0.99**
Allegheny Ludlum	296.0	11	575.4	–18	22.6	–38	45.9	–35	7.6	11.0	30.3	10	3.23
Armco	457.2	–31	903.1	–42	–55.1	NM	–42.2	NM	NM	18.1	0.2	NM	–0.03
Bethlehem Steel	1275.4	–11	2490.7	–12	21.9	–74	43.2	–71	1.7	5.9	6.8	10	1.53
Chaparral Steel (7)	115.0	11	208.3	–14	7.5	–44	11.5	–54	6.5	10.3	13.7	13	0.74
Commercial Metals (4)	282.9	–16	556.8	–14	6.3	2	11.7	–10	2.2	1.9	12.8	9	2.24
Florida Steel (3)	143.2	6	275.4	4	4.0	1	7.4	4	2.8	2.9	14.6	NA	NA
Inland Steel Industries	1011.2	–9	2003.7	–9	20.0	–56	38.7	–59	2.0	4.1	3.1	26	1.32

Footnotes on page 63

THOSE IN A POSITION OF POWER SHOULDN'T BE COMPROMISED BY A BOWL OF GOOSEBERRIES.

Although few business executives have been able to walk away from one of our delectable desserts, we believe they should have the option to do so. But a swivel table is just one way British Airways gives First Class passengers freedom of choice. Be entertained or relax in one of the most spacious sleeper seats in the air. Dine on exquisite entrées or enjoy our Champagne Supper—a lighter meal served earlier, perfect for those who've made the decision to rest. British Airways First Class. Because those who are in control in the boardroom should never feel trapped on board.

BRITISH AIRWAYS

The world's favourite airline.®

CORPORATE SCOREBOARD

COMPANY	SALES 2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	SALES 6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	PROFITS 2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	PROFITS 6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	MARGINS 2ND QUARTER 1990 %	MARGINS 2ND QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 6 30	PRICE EARNINGS RATIO 7 20	12 MONTH EARNING PER SHAR
Keystone Consolidated Industries	86.1	–2	166.1	4	5.7	92	8.7	89	6.7	3.4	43.7	11	2.17
Lone Star Technologies	145.6	–9	292.0	–5	9.6	NM	17.9	NM	6.6	NM	NM	NM	–6.90
Lukens	178.9	10	349.5	8	11.7	31	22.6	41	6.5	5.5	25.7	8	5.4
Northwestern Steel & Wire (5)	115.1	–20	212.9	–20	2.9	–58	1.9	–79	2.5	4.8	22.5	NA	1.08
Nucor	379.6	13	727.8	13	18.6	15	33.6	4	4.9	4.8	9.9	28	2.73
Oregon Steel Mills	78.3	29	153.1	30	8.1	34	15.1	43	10.3	9.9	21.1	13	3.20
Quanex (2)	165.5	26	310.6	26	7.3	–16	11.1	–30	4.4	6.6	15.4	10	1.74
UNR Industries	105.3	10	204.3	10	6.6	–79	11.5	–66	6.2	32.2	9.4	8	0.49
Weirton Steel	302.3	–12	614.2	–13	6.4	NM	10.4	60	2.1	0.1	9.4	6	1.53
Worthington Industries (7)	257.1	–3	479.1	–5	19.1	–4	31.7	–12	7.4	7.5	16.5	17	1.38
(c) OTHER METALS GROUP COMPOSITE	**2947.9**	**5**	**5364.1**	**2**	**327.0**	**3**	**603.3**	**–5**	**12.5**	**12.9**	**18.1**	**16**	**1.92**
Asarco	543.1	1	1064.4	–8	50.2	–1	86.0	–28	9.2	9.4	13.6	6	4.74
Brush Wellman	78.4	–6	159.2	–3	6.7	–25	12.2	–36	8.5	10.7	5.4	32	0.74
Cleveland-Cliffs	89.3**	–15	148.8	–19	14.1	–22	19.6	–36	15.8	17.1	22.4	7	4.40
Freeport-McMoRan Copper	107.4	12	187.6	5	22.8	–7	38.4	–22	21.2	25.5	66.6	14	1.04
Homestake Mining	127.8**	19	253.5	28	–7.7	NM	1.2	41	NM	1.2	0.9	NM	0.18
Inspiration Resources	630.4**	4	898.6	0	36.6	1	24.9	–31	5.8	6.0	3.4	22	0.22
Magma Copper	204.9	26	386.5	35	22.5	81	33.8	26	11.0	7.6	10.7	3	1.70
Newmont Gold	169.2	22	329.6	33	39.4	41	81.9	85	23.3	20.0	29.9	31	1.49
Newmont Mining	184.6	22	350.2	33	20.6	422	63.3	NM	11.2	2.6	NM	18	2.55
Phelps Dodge	682.8	–2	1325.4	–8	114.5	–9	225.8	–23	16.8	18.2	14.1	12	5.75
Precision Castparts (9)	129.8	16	260.4	15	7.4	–4	16.2	12	5.7	6.9	12.6	21	1.66
(7) NONBANK FINANCIAL INDUSTRY COMPOSITE	**37451.1**	**0**	**73425.2**	**2**	**2028.6**	**19**	**2275.5**	**–29**	**5.4**	**4.5**	**9.5**	**17**	**1.96**
(a) FINANCIAL SERVICES GROUP COMPOSITE	**22300.9**	**0**	**43417.3**	**2**	**1299.1**	**12**	**813.2**	**–58**	**5.8**	**5.2**	**10.5**	**23**	**1.58**
Alex. Brown	77.2**	9	145.7	11	4.5	7	7.0	NM	5.9	6.0	11.2	12	1.22
Alleghany	388.7	40	719.6	35	26.6	53	37.6	54	6.8	6.3	10.9	8	10.46
American Express	6063.0**	–5	11968.0	–2	320.0	1	–143.0	NM	5.3	5.0	9.0	31	0.98
Block (H&R) (8)	606.2**	18	770.9	18	131.8	14	127.9	21	21.7	22.4	31.8	18	2.3
Corroon & Black	118.5	0	243.1	–1	10.1	53	21.5	13	8.5	5.5	14.8	14	2.16
Crawford	109.8	20	220.4	28	8.2	12	15.7	17	7.5	8.0	24.1	19	1.70
Edwards (A. G.) (10)	166.4**	12	316.8	12	14.4	1	26.9	4	8.6	9.8	16.7	11	2.48
Equifax	233.5	10	451.6	11	13.7	14	23.5	15	5.9	5.7	15.4	25	0.79
Federal National Mortgage Assn.	3157.7**	12	6264.6	12	289.6	50	566.2	58	9.2	6.8	31.1	11	3.88
First Financial Management	211.4**	49	403.1	53	15.5	28	28.1	30	7.3	8.5	12.7	9	2.5
Inter-Regional Financial Group	81.5**	0	158.7	5	1.3	–49	1.3	–9	1.5	3.0	4.2	22	0.3
Marsh & McLennan	677.3**	12	1373.0	12	80.8	5	175.0	6	11.9	12.8	32.0	18	4.18
Merrill Lynch	2868.5**	–1	5533.0	–3	74.1	13	115.4	14	2.6	2.3	–7.1	NM	–2.26
Morgan Stanley Group	1446.1**	–5	2843.3	3	58.0	–48	140.2	–27	4.0	7.4	21.0	8	9.86
PaineWebber Group	787.9**	8	1559.9	11	14.6	–3	25.4	5	1.9	2.1	4.5	17	1.16
Policy Management Systems	85.2	31	165.6	32	9.1	54	17.7	51	10.7	9.1	11.2	24	1.76
Primerica	1553.7**	11	2996.9	14	96.9	53	180.1	57	6.2	4.5	13.4	10	3.25
Schwab (Charles)	154.7**	11	304.4	16	4.8	14	8.5	2	3.1	3.0	11.2	22	0.69
Shearson Lehman Hutton Holding	2600.0**	–21	5200.0	–17	51.0	–7	–707.0	NM	2.0	1.7	–52.4	NM	–7.66
Student Loan Marketing Assn.	913.5	10	1778.8	11	74.0	18	145.1	17	8.1	7.5	29.4	20	2.75
(b) INSURANCE GROUP COMPOSITE	**9105.5**	**1**	**17894.9**	**3**	**708.4**	**30**	**1259.8**	**19**	**7.8**	**6.1**	**13.2**	**10**	**4.73**
Aetna Life & Casualty	4812.9	–4	9586.7	0	203.8	20	383.6	12	4.2	3.4	9.8	9	6.01
American General	1204.0	14	2244.0	9	198.0	92	305.0	53	16.4	9.8	12.6	11	4.30
Argonaut Group	139.7	9	287.0	13	21.4	6	41.3	1	15.3	15.8	17.0	9	8.66
Hartford Steam Boiler	139.9	12	273.7	13	19.8	1	40.2	2	14.2	15.7	23.4	16	3.80
Progressive	345.9**	–2	687.5	–2	36.8	17	64.2	19	10.6	8.9	19.7	14	3.47
Provident Life & Accident	709.1**	6	1347.3	0	41.8	19	78.6	29	5.9	5.3	13.4	7	3.55
Safeco	804.7**	9	1577.8	9	76.0	3	132.3	–5	9.4	10.0	15.8	8	4.66
Torchmark	436.0	6	873.0	8	60.5	13	120.9	15	13.9	13.1	24.5	12	4.20
Unum	513.2	8	1017.8	7	50.3	27	93.8	30	9.8	8.3	14.8	11	4.83
(c) SAVINGS & LOAN GROUP COMPOSITE	**6044.7**	**–3**	**12113.1**	**0**	**21.1**	**NM**	**202.4**	**–2**	**0.3**	**NM**	**2.0**	**36**	**0.45**
Ahmanson (H. F.)	1158.6**	7	2293.5	11	60.1	51	121.8	54	5.2	3.7	11.6	9	2.33
Apple Bancorp	100.6	13	196.9	14	5.3	21	9.9	2	5.3	4.9	8.2	9	4.66
CalFed	600.9**	–24	1246.8	–19	–53.0	NM	–34.1	NM	NM	2.4	0.9	32	0.47
CrossLand Savings	274.7**	–28	561.3	–26	–40.0	NM	–176.4	NM	NM	1.0	84.5	NM	–30.74
Dime Savings Bank of New York	280.6	–5	563.0	–2	9.1	307	23.3	178	3.3	0.8	–11.6	NM	–3.29
Downey Savings & Loan Assn.	98.2**	–4	199.2	0	10.3	78	23.4	48	10.5	5.7	4.5	26	0.66
Glenfed (6)	619.9**	–8	1242.8	–5	25.9	26	54.8	45	4.2	3.0	9.4	3	3.7
Golden West Financial	526.7	9	1040.2	13	49.3	22	96.3	28	9.4	8.3	16.4	11	2.8
Goldome	317.4**	16	669.1	9	1.4	NM	10.9	NM	0.4	NM	20.7	1	0.69
Great Western Financial	1031.2**	6	2029.9	9	78.2	51	152.4	40	7.6	5.3	7.0	16	1.1
HomeFed	477.8**	–1	952.9	3	–108.2	NM	–73.6	NM	NM	5.8	–1.5	NM	–0.8
Standard Federal Bank	228.4**	–9	453.2	–8	9.9	–26	19.6	–26	4.3	5.4	8.6	7	1.2

Footnotes on page 63

This may be
the very best idea
you've ever had.

Bells and whistles,
the works.

The one you
could ride all the way
to the corner office.

When it's important,
it belongs on
Hammermill paper.

An idea acquires a little more impact when you put it on Hammermill paper. A little more immediacy. Why Hammermill? It could be the sharp, down-to-business readability of our copier papers. The leading-edge look of our desktop publishing papers. Or the commanding quality of our bond papers. Hammermill makes just about every kind of business paper around. And every one has that air of importance that helps make sure what you have to say gets the attention it deserves.

HAMMERMILL PAPERS®

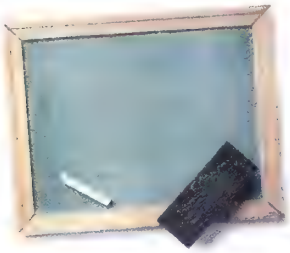
Where America
conducts its business.

© 1990 International Paper Company

INTERNATIONAL PAPER

Why Compaq will ne
that simply

The way we see it, the so-so, the pretty good and the just plain average are things for someone else. Not for us. And most certainly not for you.



Before creating anything, we start with a clean slate, and talk to personal computer users like you.

That's the reason why every COMPAQ personal computer product ever introduced has been designed to deliver on a simple promise: to simply work better. It's what makes our high-performance PCs different from all the others.

The whole process starts with you.

Before we design our products, we sit down and talk with computer users like you. To see what you want. And what you need.

Then we take these ideas and combine them with the latest technology and our own innovative thinking.

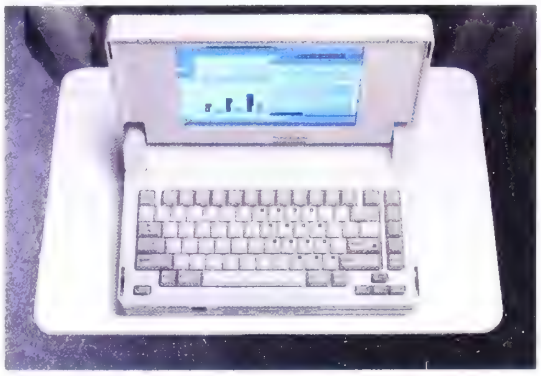
The result is a line of PCs with the right performance for whatever you want to do. Performance that comes from more than just the processor. It includes features like high-speed disk drives and VGA graphics. Room to customize and upgrade with expansion cards and peripherals. And the compatibility to work with the best of industry-standard technology.

This attention to detail is one reason why our PCs consistently earn the highest marks for quality from computer experts. And unsurpassed marks for satisfaction from PC users.

COMPAQ personal computers earn an impressive number of industry awards. But it's all the things you can do with our PCs that's really impressive.

You'll see this thinking in every COMPAQ PC system, desktop, portable and laptop we introduce.

The new COMPAQ DESKPRO 386N and COMPAQ DESKPRO 286N are the first COMPAQ personal computers designed with specific network features. They're optimized to work in combination with the COMPAQ SYSTEMPRO PC System



The new COMPAQ SLT 386S/20, like all our laptops, is designed to fit where you work. Whether you're on the 35th floor overlooking Manhattan or at 35,000 feet over the Rockies.

er introduce a PC
orks OK.

owerful COMPAQ desktop servers.

The COMPAQ SYSTEMPRO brings an un-
edented combination of performance and

And for the ultimate in portability, the 8½″ × 11″ COMPAQ LTE and COMPAQ LTE/286 put the performance of a desktop personal com-

No matter what you do, there's a COMPAQ PC system, desktop, portable or laptop that will help you work better.

andability to connected environments.

The new COMPAQ DESKPRO 386s/20 de-
livers power at the office
without taking over your
whole desk.

ry COMPAQ product is meticulously designed. Ideas that don't measure up will wind up here, not in your office.

The new COMPAQ SLT 386s/20 laptop lets
put that same high performance to work on
road or on your desk. Without compromising
tionality or size.

puter in your briefcase. With room to spare.

All told, every COMPAQ PC ever introduced offers the difference between simply working OK and simply working better.

A worldwide network of Authorized Dealers is ready and waiting to help you.

For more information and the location of an Authorized COMPAQ Computer Dealer, call 1-800-231-0900, Operator 117. In Canada, 1-800-263-5868, Operator 117.

COMPAQ

It simply works better.

CORPORATE SCOREBOARD

COMPANY	SALES				PROFITS				MARGINS				
	2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	2ND QUARTER 1990 %	2ND QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 6-30 %	PRICE-EARNINGS RATIO 7-20	12 MONTHS EARNINGS PER SHARE
TCF Financial	120.6**	−14	240.3	−14	−31.0	NM	−29.1	NM	NM	2.3	−13.5	NM	−3.3
TransCapital Financial	120.2	−21	248.6	−20	−1.5	NM	−4.8	NM	NM	NM	−6.6	NM	−1.1
Westcorp	88.9	15	175.4	18	5.3	113	8.2	44	5.9	3.2	8.8	12	0.7
18 OFFICE EQUIPMENT & COMPUTERS													
INDUSTRY COMPOSITE	**42237.3**	**9**	**80959.8**	**10**	**2483.7**	**9**	**4767.1**	**9**	**5.9**	**5.9**	**10.4**	**19**	**2.2**
(a) **BUSINESS MACHINES, SERVICES & SUPPLIES GROUP COMPOSITE**	**3650.5**	**14**	**7278.8**	**17**	**186.2**	**5**	**374.4**	**21**	**5.1**	**5.5**	**16.2**	**16**	**1.6**
American Business Products	94.8	−3	195.2	0	3.0	−4	6.8	6	3.2	3.2	13.3	12	1.9
Bell & Howell	147.1	6	294.7	0	−4.4	NM	−10.1	NM	NM	NM	47.9	NA	11.8
CompuCom Systems	77.3	27	146.1	25	0.6	240	1.1	148	0.8	0.3	9.6	21	0.0
CUC International (11)	104.2	24	202.6	26	3.0	0	5.5	NM	2.9	3.6	NM	59	0.3
Deluxe	328.9	6	673.9	7	38.2	12	74.3	15	11.6	11.0	25.6	17	1.9
Dennison Mfg.	195.6	−1	374.4	1	3.7	−63	5.8	−66	1.9	5.2	6.8	23	1.1
Diebold	119.4	2	232.6	1	7.7	−13	15.6	−5	6.4	7.6	9.1	17	2.6
Duplex Products (2)	77.3	−10	152.4	−8	2.7	−29	6.1	−13	3.5	4.5	11.6	9	1.7
Harland (John H.)	93.8	5	184.3	6	15.1	1	30.0	3	16.1	16.8	21.0	15	1.5
HON Industries	158.2	12	332.0	15	8.2	8	19.7	15	5.2	5.4	25.3	25	0.8
Inacomp Computer Centers (5)	134.8	45	259.6	46	1.8	4	4.0	4	1.4	1.9	14.4	10	0.9
Intelligent Electronics (2)	346.3	119	702.7	179	6.6	224	12.6	304	1.9	1.3	21.8	13	1.5
MicroAge (3)	157.3	72	301.7	72	1.3	60	3.0	56	0.8	0.9	21.4	11	1.3
Miller (Herman) (7)	223.8	5	424.5	5	13.6	46	25.1	24	6.1	4.4	15.9	13	1.8
Pitney Bowes	774.2	12	1529.9	13	60.4	−3	120.1	4	7.8	9.0	12.5	19	2.3
Reynolds & Reynolds (3)	149.4	2	300.4	−2	6.4	13	12.8	−3	4.3	3.8	11.5	9	2.4
Smith Corona (6)	79.8	−29	190.4	−19	−1.5	NM	4.6	−51	NM	NM	45.8	5	1.0
Standard Register	178.5	1	352.9	2	8.9	−7	18.4	2	5.0	5.4	12.4	12	1.3
Tech Data (11)	101.3	32	202.2	36	1.2	−36	−0.7	NM	1.2	2.5	5.2	19	0.3
Wallace Computer Services (5)	108.4	2	226.4	4	9.6	2	19.8	5	8.9	8.8	14.9	13	1.8
(b) **COMPUTERS & PERIPHERALS GROUP COMPOSITE**	**34434.1**	**7**	**65445.2**	**9**	**1925.8**	**7**	**3625.2**	**5**	**5.6**	**5.6**	**8.9**	**20**	**2.7**
AM International (5)	227.2	2	445.6	4	−50.8	NM	−53.6	NM	NM	3.6	−25.8	NM	−0.9
Amdahl	519.1	10	1025.9	9	46.3	41	76.2	−3	8.9	7.0	12.5	13	1.3
Apple Computer (3)	1364.8	9	2711.0	9	119.8	25	251.6	65	8.8	7.7	35.7	10	4.2
Applied Magnetics (3)	95.0	28	183.3	22	3.1	566	5.2	119	3.2	0.6	−11.0	NM	−1.1
AST Research (6)	151.8	23	289.1	22	15.2	513	24.8	NM	10.0	2.0	18.1	8	2.8
Compaq Computer	862.2	19	1734.3	23	104.3	24	196.4	18	12.1	11.6	23.0	14	4.1
Conner Peripherals	303.8	85	538.9	83	26.6	183	42.1	179	8.8	5.8	20.8	17	1.5
Control Data	405.6	−50	827.2	−50	11.2	NM	18.0	NM	2.8	NM	−39.4	NM	−3.9
Cray Research	227.0	77	362.9	48	42.6	865	52.1	779	18.8	3.4	23.9	10	4.6
Dell Computer (11)	120.3	38	230.1	37	5.3	161	6.4	20	4.4	2.3	9.8	26	0.4
Digital Equipment (6)	3365.3	−4	6626.5	0	−256.7	NM	−231.8	NM	NM	9.0	0.9	NM	0.5
Dynatech (9)	116.2	13	232.9	16	4.4	9	8.6	112	3.7	3.9	11.1	11	1.5
Everex Systems (5)	114.4	16	221.9	16	6.9	17	12.8	19	6.0	5.9	18.0	9	0.9
Hewlett-Packard (2)	3308.0	16	6411.0	16	186.0	−8	359.0	−9	5.6	7.1	13.4	14	3.3
International Business Machines	16495.0	8	30680.0	10	1410.0	5	2447.0	7	8.5	8.8	10.1	17	6.8
MAI Basic Four (3)	97.0	13	192.0	1	−0.2	NM	1.9	NM	NM	NM	5.1	63	0.0
Maxtor	147.1	36	288.7	40	6.7	206	13.2	268	4.5	2.0	11.6	14	1.0
Micropolis	97.3	23	173.2	8	2.4	NM	1.3	NM	2.4	NM	−34.7	NM	−2.1
NCR	1605.0	5	2870.0	3	115.0	4	167.0	3	7.2	7.2	21.0	13	5.5
Quantum	162.7	77	292.5	73	17.3	50	30.1	63	10.7	12.6	38.5	12	1.8
Seagate Technology (6)	668.1	80	1344.2	85	29.7	24	58.0	27	4.4	6.5	18.3	7	1.9
Silicon Graphics (6)	120.3	41	230.3	50	11.2	133	19.9	152	9.3	5.6	18.6	20	1.6
Storage Technology	276.4	17	536.3	19	15.9	263	25.1	326	5.8	1.9	11.9	13	2.0
Stratus Computer	94.1	13	181.2	14	7.1	−21	13.8	−18	7.6	10.8	16.0	16	1.5
Tandem Computers (3)	472.0	12	923.3	18	32.4	5	59.3	24	6.9	7.3	11.2	16	1.2
Tandon	96.8	−1	201.9	6	6.3	NM	13.3	NM	6.5	NM	25.6	9	0.3
3Com (7)	116.8	5	224.1	2	7.3	−11	14.0	−26	6.3	7.4	8.8	23	0.7
Unisys	2470.8	−4	4777.1	0	11.8	−78	8.6	NM	0.5	2.1	−29.2	NM	−4.4
Zenith Electronics	334.1	−13	689.8	−5	11.2	NM	−15.2	NM	NM	NM	−5.3	NM	−0.7
(c) **COMPUTER SOFTWARE & SERVICES GROUP COMPOSITE**	**4152.8**	**14**	**8236.0**	**15**	**371.7**	**23**	**767.6**	**26**	**9.0**	**8.3**	**21.2**	**19**	**1.5**
Comdisco (3)	489.0**	16	960.0	12	20.0	−31	39.0	−28	4.1	6.9	17.0	8	2.2
Computer Associates International (9)	255.1	−16	618.7	−6	3.6	−66	70.5	33	1.4	3.5	15.2	11	0.8
Computer Sciences (9)	407.6	19	825.3	18	13.7	5	37.7	26	3.4	3.8	15.3	11	4.1
Electronic Data Systems	1435.6	6	2832.2	8	125.3	19	235.1	15	8.7	7.8	23.7	18	1.9
Gerber Scientific	80.9	1	157.2	−1	8.3	−8	16.6	−5	10.3	11.4	16.4	9	1.3
Inmac (5)	81.7	16	152.7	15	1.6	544	2.4	165	2.0	0.4	-16.0	NM	−0.6
Intergraph	254.1	16	484.1	20	16.5	−19	31.5	−21	6.5	9.3	10.9	12	1.3
LDI	81.1	33	202.6	21	2.1	50	5.4	39	2.5	2.3	13.1	10	1.5
Lotus Development	175.2	33	340.8	35	23.5	128	46.3	197	13.4	7.8	31.8	11	2.3
Mentor Graphics	101.0	−5	217.7	6	3.6	−70	15.2	−37	3.6	11.7	12.0	18	1.0
Microsoft (6)	337.0	53	647.9	55	80.0	76	155.1	79	23.7	20.6	33.8	31	2.3
Novell (2)	120.0	9	225.9	8	20.5	78	35.6	58	17.1	10.4	21.9	28	1.8
Oracle Systems (7)	334.4	55	570.8	55	53.0	58	77.2	34	15.8	15.5	36.9	21	0.8

Footnotes on page 63

Curtis Strange. U.S. Open Champion.

JUST LIKE YOU, HE'S TRYING TO MANAGE A USINESS AND LEAVE A LITTLE TIME FOR GOLF.

When you spend t of time traveling business, keeping op of your game is ortant. And in the game of busi- s, you can't afford to miss a stroke, ll, an opportunity.

So it's no surprise that SkyTel's™ onwide pager is used by winners ll fields. From U.S. Open cham- n Curtis Strange to the biggest ers in the Fortune 500.®

Here's how it works.

Whenever you leave town, you y the compact (2.5 oz.) SkyPager.® n when someone needs to reach , they simply dial SkyTel's 800 nber and punch in your code.

Seconds later, our nationwide satellite system relays the message to your SkyPager. With unmatched coverage, SkyTel will reach you in virtually any major U.S. city. Our network uses an exclusive frequency that penetrates concrete and steel with ease.

There's also a feature called SkyTalk,™ which allows callers to leave you detailed voice messages while instantly notifying you of the call.

So you'll spend less time checking in with the office. Which will free you for more important things. Like lowering your handicap.

1-800-456-3333. EXT 133

Or fax to (601) 354-9036. Or mail to SkyTel, 1850 M St. NW, Suite 800, Washington, DC 20036.

Name _____

Company _____ Title _____

Address _____

City _____ State _____ Zip _____

Phone(O) _____

Phone(H) _____

SkyTel™

AN UNFAIR BUSINESS ADVANTAGE™

BW-CS-0890

CORPORATE SCOREBOARD

COMPANY	SALES 2ND QUARTER 1990 $ MIL	SALES CHANGE FROM 1989 %	SALES 6 MONTHS 1990 $ MIL	SALES CHANGE FROM 1989 %	PROFITS 2ND QUARTER 1990 $ MIL	PROFITS CHANGE FROM 1989 %	PROFITS 6 MONTHS 1990 $ MIL	PROFITS CHANGE FROM 1989 %	MARGINS 2ND QUARTER 1990 %	MARGINS 2ND QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 6 30 %	PRICE-EARNINGS RATIO 7 20	12 MONTH EARNING PER SHAR
19 PAPER & FOREST PRODUCTS													
INDUSTRY COMPOSITE	**21144.0**	**5**	**40961.2**	**5**	**1060.8**	**–27**	**2171.0**	**–24**	**5.0**	**7.3**	**13.4**	**10**	**3.84**
(a) **FOREST PRODUCTS GROUP COMPOSITE**	**8290.8**	**7**	**15580.3**	**5**	**326.8**	**–37**	**681.5**	**–31**	**3.9**	**6.7**	**12.8**	**10**	**3.31**
Bohemia (8)	78.7	–3	162.2	4	2.4	–52	3.2	–36	3.0	6.0	14.7	4	3.24
Boise Cascade	1050.7	–4	2116.7	–3	23.0	–69	56.6	–63	2.2	6.9	12.1	8	4.08
Georgia-Pacific	3519.0	33	6178.0	21	107.0	–38	208.0	–36	3.0	6.5	19.4	8	6.30
Louisiana-Pacific	501.5	–5	976.3	–2	38.0	–21	73.8	–16	7.6	9.2	15.0	8	4.68
Pope & Talbot	143.8	–10	292.8	5	8.6	–23	19.6	–5	6.0	6.9	20.6	6	3.62
Weyerhaeuser	2392.4	–10	4674.9	–6	114.3	–26	244.3	–19	4.8	5.9	6.1	19	1.28
Willamette Industries	491.6	0	961.5	3	43.6	-7	86.1	–1	8.9	9.6	20.4	7	7.48
WTD Industries (8)	113.1	20	217.8	19	-10.1	NM	10.1	NM	NM	5.0	–3.0	NM	–0.23
(b) **PAPER GROUP COMPOSITE**	**12853.2**	**4**	**25380.9**	**5**	**734.1**	**–22**	**1489.4**	**–20**	**5.7**	**7.6**	**13.7**	**10**	**4.12**
Bowater	342.3	-6	680.6	–6	23.2	–39	45.5	-41	6.8	10.4	11.8	8	3.01
Champion International	1260.0	–2	2544.4	–1	63.5	–44	133.2	-41	5.0	8.8	8.9	8	3.40
Chesapeake	222.8	4	426.4	6	7.5	–37	11.9	–52	3.4	5.6	11.0	12	1.68
Consolidated Papers	238.0	0	478.4	–1	38.1	–13	78.4	–10	16.0	18.3	18.5	11	3.65
Glatfelter (P. H.)	156.9	0	315.4	1	22.3	–10	42.2	–14	14.2	15.9	21.8	11	3.60
International Paper	3241.0	10	6406.0	15	185.0	19	365.0	–19	5.7	7.7	14.6	8	7.07
James River Corp. of Virginia (8)	1522.1	–7	2955.2	–2	50.8	-32	97.8	–27	3.3	4.5	9.1	11	2.45
Kimberly-Clark	1612.7	16	3186.0	13	80.4	21	197.6	–3	5.0	7.3	19.8	16	5.19
Mead	1228.9	2	2370.3	1	46.1	–26	85.6	–25	3.8	5.2	11.1	11	2.97
Potlatch	321.2	9	648.0	9	32.3	26	69.4	13	10.1	8.7	16.3	8	5.00
Scott Paper	1321.0	5	2617.0	4	74.6	4	134.7	–15	5.6	5.7	16.6	10	4.89
Union Camp	715.1	0	1416.5	0	58.4	–28	125.8	–22	8.2	11.4	14.7	10	3.84
Wausau Paper Mills (4)	88.2	10	168.3	8	5.8	3	9.9	–8	6.6	7.1	15.7	16	2.64
Westvaco (2)	583.0	4	1168.5	5	46.0	21	92.4	–13	7.9	10.4	13.5	8	3.22
20 PUBLISHING & BROADCASTING													
INDUSTRY COMPOSITE	**12764.6**	**18**	**25061.4**	**20**	**911.4**	**–24**	**1768.4**	**–17**	**7.1**	**11.1**	**11.6**	**21**	**2.24**
(a) **BROADCASTING GROUP COMPOSITE**	**2749.9**	**10**	**5375.4**	**11**	**351.3**	**15**	**814.3**	**72**	**12.8**	**12.2**	**25.8**	**12**	**8.71**
American TV & Communications	275.3	15	541.8	15	28.4	16	55.2	23	10.3	10.2	24.8	37	0.96
Capital Cities/ABC	1357.3	11	2619.6	12	142.3	2	248.6	12	10.5	11.4	15.9	20	29.12
CBS	828.8	7	1680.1	12	138.0	16	223.3	28	16.7	15.4	13.6	14	13.40
Chris-Craft Industries	80.1	13	144.2	11	20.7	498	256.0	NM	25.9	4.9	76.4	1	28.12
Multimedia	123.9	2	233.7	3	12.7	18	18.7	21	10.2	8.9	NM	20	3.38
Scripps Howard Broadcasting	84.4	7	156.0	6	9.2	25	12.5	36	10.8	9.2	14.9	23	2.36
(b) **PUBLISHING GROUP COMPOSITE**	**10014.7**	**20**	**19685.9**	**22**	**560.2**	**–37**	**954.0**	**–43**	**5.6**	**10.7**	**7.0**	**33**	**1.17**
Affiliated Publications	132.1	–4	265.8	–1	7.4	–41	13.9	–35	5.6	9.0	17.6	20	0.52
Belo (A. H.)	114.3	5	212.2	6	8.5	–12	11.3	–6	7.5	8.8	11.0	29	1.16
Commerce Clearing House	178.6	3	403.5	4	12.4	–4	41.5	0	6.9	7.4	14.4	25	1.94
Dow Jones	441.6	1	868.7	3	34.9	–28	59.8	–76	7.9	11.0	9.1	18	1.27
Dun & Bradstreet	1196.0	13	2346.1	11	123.0	–18	233.3	21	10.3	14.2	25.0	16	2.84
Gannett	893.8	-1	1707.2	-1	105.3	–6	180.3	–4	11.8	12.4	19.8	15	2.44
Houghton Mifflin	122.5	11	166.3	8	11.5	9	–0.6	NM	9.4	9.5	12.5	17	1.63
Knight-Ridder	591.7	2	1146.7	2	44.6	–36	70.5	–22	7.5	12.1	18.5	16	3.06
McClatchy Newspapers	107.6	11	202.7	10	7.8	–22	10.2	–31	7.3	10.3	10.0	18	1.03
McGraw-Hill	457.8	7	877.8	7	37.2	–27	53.7	–27	8.1	11.9	2.2	NM	0.46
Media General	159.5	6	307.0	3	12.4	105	15.1	–16	7.8	4.0	6.9	41	0.69
New York Times	468.9	2	900.1	2	26.8	–32	43.4	–39	5.7	8.5	3.8	43	0.53
Pulitzer Publishing	103.9	1	199.0	1	4.6	–34	5.5	–45	4.4	6.7	45.9	10	2.58
Scripps (E. W.)	331.9	3	629.4	2	–0.2	NM	9.6	–76	NM	7.8	9.0	24	0.71
Time Warner	2585.0	112	5326.0	126	–51.0	NM	–102.0	NM	NM	7.9	–11.9	NM	–13.41
Times Mirror	906.6**	5	1781.8	4	47.0	–45	93.0	–40	5.2	9.9	12.7	16	1.85
Topps (10)	86.2	37	153.6	33	13.9	63	24.5	55	16.2	13.6	NM	17	1.37
Tribune	656.2	2	1239.8	4	56.1	–26	89.6	–20	8.6	11.7	29.0	14	2.91
Washington Post	379.6	1	720.5	1	55.9	–8	95.0	–7	14.7	16.2	21.6	17	15.31
Western Publishing Group (11)	100.9**	–4	232.1	–6	2.0	–48	6.6	–36	1.9	3.6	10.4	18	0.94
21 SERVICE INDUSTRIES													
INDUSTRY COMPOSITE	**13832.8**	**13**	**27086.7**	**15**	**699.3**	**14**	**1281.0**	**14**	**5.1**	**5.0**	**18.2**	**23**	**1.41**
(a) **CONSTRUCTION & ENGINEERING GROUP COMPOSITE**	**4047.4**	**10**	**8117.9**	**17**	**103.7**	**32**	**188.2**	**23**	**2.6**	**2.1**	**15.0**	**23**	**1.70**
Apogee Enterprises (10)	142.2	9	294.8	17	3.7	33	8.1	34	2.6	2.2	15.7	17	1.10
Brand Companies	94.8	46	183.9	69	3.6	55	6.8	84	3.8	3.6	15.5	27	0.71
Butler Mfg.	152.4	7	280.0	3	2.9	2	2.8	–48	1.9	2.0	17.5	11	1.5
EG&G	612.2	49	1173.1	46	19.9	14	34.5	1	3.2	4.3	19.8	16	2.4
Fluor (2)	1831.2	12	3707.4	21	38.0	59	66.2	45	2.1	1.5	16.4	29	1.6

Footnotes on page 63

Discovered buried in India 2800 years ago.

India remains the oldest source of diamonds.

Since first unearthed between the Godavari and Krishna rivers, the cherished diamond has been considered a harbinger of victory and an emblem of fearlessness.

Hindu writers believed that if a flawless diamond were offered up to the gods, the donor could attain Nirvana.

Through the centuries, the diamond remains among the most treasured and costly of time-honored stones.

Yet isn't it worth it for the woman you love?

A diamond is forever.

De Beers

CORPORATE SCOREBOARD

COMPANY	SALES 2ND QUARTER 1990 $ MIL	SALES CHANGE FROM 1989 %	SALES 6 MONTHS 1990 $ MIL	SALES CHANGE FROM 1989 %	PROFITS 2ND QUARTER 1990 $ MIL	PROFITS CHANGE FROM 1989 %	PROFITS 6 MONTHS 1990 $ MIL	PROFITS CHANGE FROM 1989 %	MARGINS 2ND QUARTER 1990 %	MARGINS 2ND QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 6-30	PRICE EARNINGS RATIO 7-20	12 MONT EARNIN PER SHAR
Jacobs Engineering Group (3)	221.1	–3	439.9	5	3.6	39	7.1	41	1.6	1.1	20.3	20	1.2
Morrison Knudsen	380.2	–33	779.6	–24	7.5	4	14.7	9	2.0	1.3	13.0	20	2.8
Wheelabrator Technologies	443.1	15	921.6	27	17.7	32	32.7	23	4.0	3.5	10.9	26	1.6
Zurn Industries (9)	170.3	30	337.5	23	6.7	12	15.3	13	3.9	4.6	12.8	21	2.3
(b) INDUSTRIAL DISTRIBUTION GROUP COMPOSITE	**3968.2**	**8**	**7781.5**	**9**	**155.9**	**2**	**297.3**	**2**	**3.9**	**4.1**	**16.0**	**16**	**1.7**
AAR (7)	119.0	5	231.3	7	6.2	–16	12.3	–8	5.2	6.5	13.8	14	1.6
Anthem Electronics	110.1	44	210.1	43	6.7	90	12.4	89	6.1	4.6	21.5	17	1.8
Arrow Electronics	242.1	7	488.8	5	2.8	NM	5.5	133	1.1	0.1	0.7	78	0.0
Audiovox (1)	82.2	9	150.4	9	0.6	NM	0.7	NM	0.7	0.0	0.9	45	0.0
Genuine Parts	842.7	4	1663.9	5	51.6	3	98.6	4	6.1	6.2	20.5	14	2.6
Getty Petroleum (11)	251.0**	–8	575.5	1	0.2	–97	6.3	–64	0.1	2.8	12.8	15	1.1
Grainger (W. W.)	495.7	11	943.1	12	32.1	6	60.9	5	6.5	6.8	16.1	16	4.4
Howell	88.9	25	182.5	36	0.9	15	1.6	4	1.0	1.1	9.8	15	1.0
Marshall Industries (7)	153.0	14	285.5	6	6.2	35	10.8	8	4.1	3.4	15.0	12	2.2
Morgan Products	112.6	–2	212.4	–4	1.4	–17	1.6	–14	1.2	1.5	–4.7	NM	–0.4
Office Depot	136.8	114	279.4	119	1.6	38	4.5	67	1.2	1.8	7.5	35	0.4
Pioneer Standard Electronics (9)	83.9	10	172.4	13	2.4	85	4.5	132	2.9	1.7	15.3	12	1.2
Premier Industrial (7)	167.8	5	317.2	3	20.2	5	37.1	6	12.0	12.0	30.9	20	1.2
TBC	134.1	14	249.1	9	4.3	6	7.7	4	3.2	3.4	22.9	10	1.1
United Stationers (4)	250.3	3	506.3	3	2.3	–64	6.0	–55	0.9	2.6	7.8	13	0.8
Univar (10)	362.1	1	679.3	1	5.7	22	11.2	19	1.6	1.3	17.1	12	1.2
Willcox & Gibbs	139.2	1	278.2	2	3.6	–23	4.8	–46	2.6	3.4	12.6	9	1.0
Wolohan Lumber	88.3	10	141.4	10	4.2	3	5.1	4	4.7	5.1	18.0	10	1.7
Wyle Laboratories (11)	108.7	6	214.8	7	3.0	181	5.7	120	2.7	1.0	9.7	15	0.9
(c) POLLUTION CONTROL GROUP COMPOSITE	**2452.6**	**23**	**4614.5**	**24**	**304.3**	**21**	**555.0**	**21**	**12.4**	**12.7**	**22.8**	**29**	**1.3**
Browning-Ferris Industries (3)	767.6	19	1476.0	20	82.4	9	154.3	11	10.7	11.7	28.0	23	1.8
Chemical Waste Management	270.4	22	503.2	22	43.1	25	77.8	23	15.9	15.5	19.1	32	0.7
Waste Management	1414.6	26	2635.2	27	178.9	26	322.9	25	12.6	12.7	21.9	32	1.3
(d) PRINTING & ADVERTISING GROUP COMPOSITE	**593.2**	**8**	**1117.4**	**8**	**38.7**	**10**	**50.2**	**21**	**6.5**	**6.4**	**20.1**	**16**	**1.5**
Advo-System (3)	166.6	6	324.4	9	5.9	9	7.2	220	3.5	3.4	32.9	14	0.9
Graphic Industries (11)	84.2	16	166.1	15	1.8	35	3.4	18	2.1	1.9	10.3	19	0.5
Interpublic Group	342.4**	8	626.9	6	30.9	9	39.6	9	9.0	8.9	19.8	17	2.2
(e) OTHER SERVICES GROUP COMPOSITE	**2771.4**	**18**	**5455.5**	**19**	**96.8**	**3**	**190.3**	**8**	**3.5**	**4.0**	**15.1**	**20**	**1.1**
Adia Services	166.6**	13	327.5	13	5.0	–7	10.0	–3	3.0	3.6	11.6	13	1.6
Air & Water Technologies (2)	148.1	0	268.9	–11	1.4	NM	–0.2	NM	0.9	NM	–8.7	NM	–0.3
American Building Maintenance (2)	164.5	5	328.9	7	2.2	14	3.9	13	1.4	1.3	12.4	16	2.3
American Capital & Research (10)	132.0	22	265.9	31	2.8	64	5.7	52	2.1	1.5	NA	21	0.6
CDI	233.3	7	462.3	9	3.9	–32	8.3	–19	1.7	2.6	18.2	11	0.9
Handleman (8)	159.7	6	384.3	11	2.6	76	17.7	-27	1.6	7.1	16.6	11	1.1
International Technology (9)	89.4	32	179.1	36	4.0	78	7.8	86	4.4	3.3	17.6	24	0.4
JWP	684.3	50	1302.9	52	14.4	36	27.2	37	2.1	2.3	19.1	20	1.4
Kelly Services	367.7	7	722.6	8	18.2	0	34.0	1	4.9	5.3	24.1	17	2.3
Rollins	123.8	7	221.4	8	12.2	16	15.8	16	9.8	9.1	31.6	16	1.0
Safety-Kleen	132.9	21	258.5	22	12.0	15	23.2	13	9.0	9.5	17.5	29	1.4
Service Corp. International	139.0	10	289.6	12	15.7	10	35.4	7	11.3	11.3	8.6	18	1.0
ValCom	96.6	10	198.2	17	1.6	24	3.2	21	1.7	1.5	21.0	9	1.5
Volt Information Sciences (2)	133.5	17	245.4	11	1.0	–40	–1.6	NM	0.7	1.4	4.3	26	0.4
22 TELECOMMUNICATIONS INDUSTRY COMPOSITE	**40216.8**	**3**	**79606.1**	**5**	**3722.3**	**0**	**7391.6**	**3**	**9.3**	**9.6**	**15.1**	**15**	**2.7**
(a) EQUIPMENT & SERVICES GROUP COMPOSITE	**13367.4**	**2**	**26494.9**	**4**	**889.9**	**–8**	**1856.2**	**2**	**6.7**	**7.4**	**20.5**	**15**	**2.1**
ALC Communications	80.1	–6	161.9	8	–9.6	NM	–11.6	NM	NM	NM	NM	NA	-2.3
American Telephone & Telegraph	9025.0	–3	17917.0	0	657.0	–6	1325.0	2	7.3	7.6	20.9	15	2.5
Communications Satellite	116.8	14	227.6	14	18.7	2	37.7	8	16.0	17.8	10.7	9	3.4
DSC Communications	122.6	18	237.3	22	8.9	9	15.8	18	7.2	7.8	13.8	14	0.8
MCI Communications	1867.0	17	3674.0	19	177.0	18	340.0	15	9.5	9.4	28.7	16	2.4
Mitel (9)	85.9	0	183.3	0	–2.7	NM	1.1	–93	NM	4.1	1.6	NM	–0.0
United Telecommunications	2070.0	12	4093.8	13	40.6	–55	148.2	–11	2.0	4.9	15.8	17	1.6
(b) TELEPHONE COMPANIES GROUP COMPOSITE	**26849.5**	**4**	**53111.2**	**5**	**2832.3**	**3**	**5535.5**	**3**	**10.5**	**10.7**	**13.9**	**15**	**2.9**
Advanced Telecommunications (9)	81.4	–2	165.3	3	6.3	5	13.9	1	7.7	7.3	20.0	16	1.1
Alltel	388.6	6	773.1	11	44.6	4	90.3	5	11.5	11.8	16.4	13	2.3
Ameritech	2680.2	5	5299.3	5	352.3	11	655.8	6	13.1	12.4	16.9	13	4.7
Bell Atlantic	3075.5	7	6094.1	8	362.8	6	718.1	7	11.8	11.9	13.0	17	2.8
BellSouth	3619.2	4	7144.0	5	445.2	6	868.4	9	12.3	12.1	14.1	14	3.6
Centel	339.8	14	655.8	13	16.1	251	32.6	520	4.7	1.5	3.5	79	0.4
Cincinnati Bell	245.3	8	466.6	4	23.8	-1	42.2	–13	9.7	10.6	15.9	17	1.4

Footnotes on page 63

How do you know when you've had enough?

It's never easy to walk away from a good thing. That's especially true in investment management. On the other hand, stay around too long trying to make that last dollar, and you might go home empty-handed.

At the CIGNA companies, we do things differently because we see things differently.

We saw opportunity in Japan and Hong Kong long before it became popular. Invested early. And left early. While the Far East markets were still going strong.

Where did we go? To Europe. Where we saw even more potential.

As you might expect, staying ahead of trends has its rewards. In 1989, our International Equity Account outperformed the EAFE Index with a 29.3% rate of return.

And in the past one-, three- and five-year periods, our Account has ranked in the top quartile among competitive international funds.

What's more, we were able to achieve those results while maintaining one of the lowest risk profiles in the industry.

For more information, write CIGNA Investments, Inc., Dept. RK, Hartford, CT 06152. Before you bite off more than you can chew.

We get paid for results.℠ CIGNA

CORPORATE SCOREBOARD

COMPANY	SALES 2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	SALES 6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	PROFITS 2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	PROFITS 6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	MARGINS 2ND QUARTER 1990 %	MARGINS 2ND QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 6 30	PRICE-EARNINGS RATIO 7-20	12 MONTH EARNINGS PER SHARE
Contel	844.0	12	1641.0	9	43.0	–36	97.0	–26	5.1	8.9	14.5	22	1.53
GTE	4578.5	6	9080.2	8	363.7	11	718.9	9	7.9	7.6	18.1	13	2.17
Nynex	3436.5	4	6758.4	3	300.6	8	592.0	5	8.7	8.5	9.1	18	4.22
Pacific Telesis Group	2434.0	1	4807.0	1	287.0	–12	549.0	–14	11.8	13.5	15.4	15	2.84
Rochester Telephone	142.2	2	285.3	4	11.3	21	23.0	–18	7.9	10.3	11.7	18	1.80
Southern New England Telecomms.	403.8**	–3	805.3	–2	36.7	–43	75.7	–28	9.1	15.3	13.8	13	2.59
Southwestern Bell	2169.7	1	4298.9	2	262.5	0	510.3	2	12.1	12.2	13.2	15	3.68
US West	2410.8	–1	4836.9	0	276.4	7	548.3	8	11.5	10.6	13.0	12	3.07
23 TRANSPORTATION													
INDUSTRY COMPOSITE	**26449.8**	**4**	**51652.0**	**6**	**1087.8**	**–25**	**1476.8**	**–40**	**4.1**	**5.7**	**7.7**	**19**	**2.05**
(a) **AIRLINES**													
GROUP COMPOSITE	**10242.9**	**5**	**19596.6**	**6**	**309.6**	**–52**	**250.3**	**–73**	**3.0**	**6.6**	**5.2**	**23**	**2.54**
Alaska Air Group	263.3	16	494.1	16	9.6	–9	7.5	–55	3.6	4.7	11.1	11	1.99
AMR	2974.4	10	5662.6	10	129.2	–27	109.9	–61	4.3	6.6	7.5	13	4.48
Delta Air Lines (6)	2239.9	–3	4360.3	0	74.1	–61	105.4	–62	3.3	8.3	10.2	12	5.79
Southwest Airlines	308.2	17	568.8	15	23.5	22	28.6	–26	7.6	7.3	10.6	13	2.08
UAL	2743.9	9	5260.3	9	148.3	5	111.9	–46	5.4	5.6	15.0	15	10.56
USAir Group	1713.2	–1	3250.5	1	–75.1	NM	–113.1	NM	NM	5.8	–17.4	NM	–7.30
(b) **RAILROADS**													
GROUP COMPOSITE	**7833.7**	**2**	**15486.7**	**3**	**570.3**	**–6**	**892.6**	**–14**	**7.3**	**7.9**	**9.7**	**16**	**2.55**
Burlington Northern	1172.0	1	2355.0	3	71.0	27	126.0	41	6.1	4.8	23.7	10	3.65
Consolidated Rail	861.0	–2	1684.0	–4	74.0	–10	99.0	–30	8.6	9.3	3.9	25	1.96
CSX	2047.0	4	3955.0	4	109.0	–16	135.0	–35	5.3	6.6	10.4	10	3.46
Kansas City Southern Industries	129.0	3	259.6	4	8.7	–20	18.2	–9	6.7	8.7	10.2	14	3.36
Norfolk Southern	1180.0	1	2318.3	1	155.9	–10	296.1	–4	13.2	14.8	11.6	13	3.52
Santa Fe Pacific	660.7	–9	1404.8	–1	–1.3	NM	–62.7	NM	NM	0.4	–25.1	NM	–1.50
Union Pacific	1784.0	10	3510.0	11	153.0	1	281.0	–3	8.6	9.4	14.8	13	5.79
(c) **TRANSPORTATION SERVICES**													
GROUP COMPOSITE	**4853.2**	**5**	**9521.2**	**9**	**136.0**	**36**	**211.1**	**12**	**2.8**	**2.2**	**7.4**	**19**	**1.29**
Airborne Freight	290.6	25	562.7	25	10.7	145	17.0	142	3.7	1.9	16.1	14	1.81
Federal Express (7)	1914.2	15	3643.5	23	43.1	5	48.3	–27	2.3	2.5	7.3	21	2.18
Gatx	212.8**	24	403.7	24	17.9	17	37.8	16	8.4	8.9	11.5	9	3.06
PHH (8)	517.2	11	981.0	13	15.9	0	33.7	8	3.1	3.4	15.5	11	3.38
Rollins Truck Leasing (3)	84.0	6	163.9	6	4.7	11	7.8	8	5.6	5.4	13.7	9	0.93
Ryder System	1309.6	2	2559.9	2	32.2	–1	39.4	–33	2.5	2.5	1.7	66	0.33
Subaru of America (2)	241.7	–39	588.0	–29	5.5	NM	15.5	NM	2.3	NM	5.7	34	0.24
Trinity Industries (9)	283.1	–9	618.6	1	5.9	–57	11.4	–54	2.1	4.4	10.6	17	1.59
(d) **TRUCKING & SHIPPING**													
GROUP COMPOSITE	**3519.9**	**3**	**7047.5**	**7**	**72.0**	**–25**	**122.9**	**–59**	**2.0**	**2.8**	**5.2**	**28**	**0.88**
Alexander & Baldwin	170.7**	12	374.2	–24	22.4	4	69.6	–56	13.1	14.1	17.9	11	2.52
American President	510.8**	–4	1097.4	0	1.5	–74	–1.0	NM	0.3	1.1	–1.7	NM	–0.53
Carolina Freight	166.7	6	327.8	7	–0.9	NM	0.1	98	NM	1.3	–1.9	NM	–0.38
Consolidated Freightways	1044.2	1	2042.0	16	–3.6	NM	–37.5	NM	NM	0.9	–12.4	NM	–1.98
Hunt (J. B.) Transport Services	140.9	8	278.2	15	8.5	7	14.6	13	6.0	6.1	17.9	15	1.38
International Shipholding	79.9	9	152.6	30	3.5	15	6.9	16	4.4	4.2	11.6	9	2.34
Preston	167.4	7	328.4	6	1.2	–42	1.0	–68	0.7	1.4	–2.8	NM	–0.52
Roadway Services	669.3	9	1309.5	11	22.8	13	39.3	–6	3.4	4.3	12.8	15	2.37
Yellow Freight System	570.0	1	1137.5	4	16.4	–11	29.9	–13	2.9	3.3	3.2	55	0.51
24 UTILITIES													
INDUSTRY COMPOSITE	**30683.8**	**0**	**65486.4**	**3**	**2152.5**	**–26**	**5448.8**	**–13**	**7.0**	**9.5**	**11.2**	**11**	**2.46**
(a) **ELECTRIC**													
GROUP COMPOSITE	**26660.8**	**2**	**55021.3**	**2**	**2074.2**	**–27**	**5015.1**	**–14**	**7.8**	**10.8**	**11.2**	**11**	**2.48**
Allegheny Power System	550.2	–2	1179.0	3	43.7	–7	112.0	–2	7.9	8.4	12.0	10	3.65
American Electric Power	1260.0	5	2558.9	4	127.0	–12	286.6	–11	10.1	12.1	13.8	9	3.12
Baltimore Gas & Electric	463.1	7	1042.1	9	26.1	–41	74.0	–35	5.6	10.1	10.0	11	2.48
Carolina Power & Light	579.6	4	1221.1	5	1.9	–97	117.7	–33	0.3	13.0	12.9	13	3.40
Centerior Energy	577.5	0	1138.1	1	70.7	–25	137.0	–24	12.2	16.4	8.3	11	1.63
Central & South West	649.0	9	1208.0	3	58.0	–26	98.0	–38	8.9	13.1	9.5	15	2.62
Cincinnati Gas & Electric	315.9	4	713.6	0	42.3	–10	106.8	–3	13.4	15.4	16.4	7	4.24
CMS Energy	641.7	5	1511.8	1	65.9	–3	172.2	–4	10.3	11.2	15.1	8	3.78
Commonwealth Edison	846.4	–35	2225.0	17	–378.4	NM	–291.3	NM	NM	11.7	0.3	NM	0.17
Commonwealth Energy System	171.8	1	414.9	4	–1.0	NM	14.3	–39	NM	1.7	9.7	10	3.16
Consolidated Edison Co. of N.Y.	1263.3	4	2757.9	6	49.1	–25	187.1	–14	3.9	5.4	12.2	10	2.30
Detroit Edison	796.3	5	1611.8	4	117.8	23	254.3	28	14.8	12.7	18.3	9	3.03
Dominion Resources	846.3	–1	1718.6	–3	100.5	52	242.3	40	11.9	7.8	13.8	9	4.78
Duke Power	870.3	–1	1725.7	–1	116.9	–8	244.0	–4	13.4	14.5	13.8	11	5.03
Florida Progress	547.3	4	1048.9	5	47.9	–3	81.2	–11	8.8	9.4	12.9	10	3.46
FPL Group	1575.3	3	2932.8	1	108.2	11	159.1	–22	6.9	8.0	10.5	11	2.74
General Public Utilities	698.1	1	1451.6	1	59.8	3	144.8	–1	8.6	8.4	13.1	8	5.04
Hawaiian Electric Industries	254.2	17	491.8	18	15.6	–4	28.7	–17	6.1	7.5	11.5	12	2.68

Footnotes on page 63

THERE ARE OVER 60 BRANDS OF FAX. UT ONLY SHARP HAS BEEN NUMBER ONE FOR THE PAST THREE YEARS.

©1990 Sharp Electronics Corporation

Sharp has led the fax revolution from the start. nd we're still leading the way.

With technology that sets the industry standards r performance, reliability and value.

FO-333 FO-750 FO-5200

It's this commitment to quality that's made Sharp America's number one brand since 1987.

To learn more about Sharp's 23 best-selling models, from machines for the home office, to sophisticated systems for major corporations, to our affordable new plain paper laser fax, call 1-800-BE-SHARP.

SHARP®

FROM SHARP MINDS COME SHARP PRODUCTS™

CORPORATE SCOREBOARD

COMPANY	SALES 2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	SALES 6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	PROFITS 2ND QUARTER 1990 $ MIL	CHANGE FROM 1989 %	PROFITS 6 MONTHS 1990 $ MIL	CHANGE FROM 1989 %	MARGINS 2ND QUARTER 1990 %	MARGINS 2ND QUARTER 1989 %	RETURN ON COMMON EQUITY 12 MONTHS ENDING 6-30 %	PRICE-EARNINGS RATIO 7-20	12 MONTHS EARNINGS PER SHARE
Illinois Power	305.2	9	621.0	2	3.7	NM	–9.4	NM	1.2	NM	1.0	67	0.2
New England Electric System	426.7	15	907.4	14	19.9	–19	72.0	6	4.7	6.6	11.5	11	2.3
New York State Electric & Gas	367.0	6	805.3	6	43.3	9	113.6	6	11.8	11.5	11.9	9	2.6
Northeast Utilities	526.4	3	1124.1	5	52.1	5	129.5	8	9.9	9.7	11.8	10	1.9
Ohio Edison	522.9	2	1082.6	2	85.8	1	185.1	–1	16.4	16.7	12.9	9	2.1
Pacific Gas & Electric	2172.6	4	4420.4	5	166.2	–30	376.6	–22	7.7	11.3	9.4	14	1.6
Pennsylvania Power & Light	558.7	5	1192.9	4	66.8	3	174.4	5	12.0	12.1	14.4	10	4.1
Philadelphia Electric	841.9	8	1795.4	8	120.4	11	60.4	–76	14.3	14.0	8.5	11	1.4
Pinnacle West Capital	418.4	11	773.9	6	9.9	–79	30.9	–68	2.4	12.3	4.2	24	0.7
Portland General	184.7	7	424.8	8	5.6	14	45.5	–3	3.1	2.8	–1.4	NM	–0.2
PSI Resources	236.0	–6	490.8	5	26.7	–33	67.6	–19	11.3	15.8	18.8	8	2.0
Public Service Co. of Colorado	419.2	8	867.5	–7	30.2	–24	72.5	–13	7.2	10.1	13.6	9	2.3
Public Service Enterprise Group	1074.0	3	2399.2	2	105.5	–13	257.5	–9	9.8	11.5	12.2	10	2.4
Puget Sound Power & Light	208.4	12	473.0	3	26.3	3	77.1	1	12.6	13.7	11.5	10	1.9
Rochester Gas & Electric	182.2	–1	423.0	–2	2.1	–37	26.2	–17	1.1	1.8	10.3	10	1.9
San Diego Gas & Electric	403.3	3	849.0	5	49.0	13	105.1	33	12.1	11.1	15.9	12	3.6
SCEcorp	1594.8	1	3185.6	3	157.4	3	340.0	21	9.9	9.7	15.7	10	3.8
Southern	2019.0	7	3686.6	4	245.9	13	388.9	–13	12.2	11.6	11.6	10	2.5
Southwestern Public Service (4)	176.8	–13	355.9	–8	23.3	–21	46.3	–9	13.2	14.5	17.1	10	2.7
Teco Energy	278.1	5	514.6	0	39.4	10	67.7	4	14.2	13.6	15.9	12	2.4
Union Electric	500.8	2	947.6	1	82.7	26	123.9	22	16.5	13.4	15.1	9	2.8
Wisconsin Energy	337.8	0	729.1	–4	39.9	2	95.0	–4	11.8	11.6	14.2	10	2.8
(b) **GAS & TRANSMISSION GROUP COMPOSITE**	**4023.0**	**–11**	**10465.0**	**9**	**78.3**	**–5**	**433.7**	**2**	**1.9**	**1.8**	**10.6**	**14**	**2.1**
Brooklyn Union Gas (3)	171.4	–1	537.3	0	–5.4	NM	55.7	7	NM	NM	11.3	10	2.5
Eastern Enterprises	223.9	14	526.5	16	18.1	58	49.6	16	8.1	5.8	12.1	10	2.7
Enron	2251.3	–8	5320.1	7	33.9	246	134.9	36	1.5	0.4	14.7	11	4.7
Nicor	269.2	4	900.3	4	20.4	34	64.2	–8	7.6	5.9	17.3	10	3.8
Oneok (4)	155.1	8	421.5	10	8.4	0	31.8	–14	5.4	5.9	9.5	11	1.2
Panhandle Eastern	494.0	–7	1600.4	93	–13.6	NM	31.5	13	NM	NM	5.0	23	0.8
Sonat	306.7	–52	756.4	–28	15.7	–64	48.2	–31	5.1	6.8	7.6	25	2.0
Wicor	151.4	–1	402.4	–3	0.8	–63	17.9	–27	0.5	1.4	10.4	11	1.9

ALPHABETICAL LIST OF COMPANIES

The number following each company name identifies the Scoreboard category under which it is listed

A

AKP **10c**
AAF **21b**
Abbott Laboratories **12d**
Adia Services **21e**
Advanced Micro **9d**
Advanced Telecom **22b**
Advo System **21d**
Aetna Life & Casualty **17b**
Affiliated Pubs **20b**
Aftermarketing **17c**
Air & Water Techs **21e**
Air Products **4**
Airborne Freight **23c**
Alaska Air Group **23a**
Albany International **15d**
Alberto-Culver **6d**
Alexander **10c**
Alexander Proportion **22a**
Alco Standard **5**
Alcoa **16a**
Alex. Brown **17a**
Alexander & Baldwin **23d**
Alexander's **8**
Allegheny **17a**
Allegheny Ludlum **16b**
Allegheny Power **24a**
Allen Group **9c**
Allergan **12b**
Allied Products **15c**
Allied Signal **5**
Alltel **22b**
AMI International **18b**
Amax **16a**
Amdahl **18b**
Amerada Hess **11b**
American Brands **6e**
American Building **21e**
American Business **18a**
American Capital **21e**
American Cyanamid **4**
American Electric **24a**
American Express **17a**
American General **17b**
American Greetings **14d**
American Home **12b**
American Maize **10b**
American Petrofina **11b**
American President **23d**
American Stores **10c**
American TV **20a**
Ameritech **22b**
AmeriTrust **3b**
Amoco **13a**
Ames Department Stores **8**
Ametek **9c**
Amoco **11b**
AMP **9d**
AMR **23a**
Analog Devices **9d**
Andrew **9b**
Angelica **6a**
Anheuser-Busch **6c**
Anthem Electronics **21b**
Anthony Industries **14d**
Apogee Enterprises **21a**
Apple Bancorp **17c**
Apple Computer **18b**
Applied Magnetics **18b**
Applied Materials **15c**
Applied Power **15c**
Arbor Drugs **12a**
Arco Chemical **4**
Argonaut Group **17b**
Armco **16b**
Arrow Electronics **21b**
Arvin Industries **2b**
Asarco **16c**
Ashland Coal **11a**
Ashland Oil **11b**
AST Research **18b**
AT&T **22a**
Atlantic Richfield **11b**
Audiovox **21b**
Augat **9d**
Avery International **15a**
Avon Products **6d**
Aztar **14b**

B

Baker (J) **8**
Baker Hughes **11c**
Baldor Electric **9a**
Ball **7a**
Bally Mfg **14d**
Baltimore G&E **24a**
Banc One **3b**
Bandag **2c**
Bank of Boston **3a**
Bank of New York **3a**
BankAmerica **3d**
Bankers Trust New York **3a**
Bard (C. R.) **12d**
Barnes Group **13a**
Barnett Banks **3c**
Bassett Furniture **6b**
Bausch & Lomb **12d**
Baxter International **12d**
Beckman Instruments **9c**
Becton, Dickinson **12d**
Bell & Howell **18a**
Bell Atlantic **22b**
BellSouth **22b**
Belo (A. H.) **20b**
Bemis **7b**
Bergen Brunswig **12a**
Best Products **8**
Bethlehem Steel **16b**
Betz Laboratories **4**
Beverly Enterprises **12c**
Bic **15a**
Big B **12a**
Blair **8**
Block (H&R) **17a**
Blockbuster Ent **14b**
Blount **13b**
Boatmen's Bancshares **3b**
Bob Evans Farms **14a**
Boeing **1**
Bohemia **19a**
Boise Cascade **19a**
Bowater **19b**
Brand **21a**
Bristol-Myers Squibb **12b**
Brooklyn Union Gas **24b**
Brown Group **6a**
Brown-Forman **6c**
Browning-Ferris **21c**
Brunswick **14d**
Brush Wellman **16c**
Burlington Northern **23b**
Burlington Resources **11b**
Butler Mfg **21a**

C

Caesars New Jersey **14c**
Caesars World **14c**
CalFed **17c**
CalMat **13a**
Campbell Soup **10b**
Capital Cities/ABC **20a**
Cardinal Distribution **12a**
Carlisle **2c**
Carnival Cruise Lines **14d**
Carolina Freight **23d**
Carolina Power **24a**
Carter Hawley Hale **8**
Carter-Wallace **12b**
Casey's General **10c**
Castle & Cooke **10b**
Caterpillar **15c**
CBS **20a**
CDI **21e**
Centel **22b**
Centerior Energy **24a**
Centex **13b**
Central & South West **24a**
Champion Ents. **13b**
Champion Intl **19b**
Chaparral Steel **16b**
Charming Shoppes **8**
Chase Manhattan **3a**
Chemed **6d**
Chemical Banking **3a**
Chemical Waste **21c**
Chesapeake **19b**
Chevron **11b**
Child World **8**
Chips & Technologies **9d**
Chris-Craft Industries **20a**
Chrysler **2a**
Church & Dwight **6d**
Cincinnati Bell **22b**
Cincinnati G&E **24a**
Cincinnati Milacron **15b**
Circuit City Stores **6b**
Circus Circus **14c**
Citicorp **3a**
Citizens & Southern **3c**
Clark Equipment **15b**
Cleveland-Cliffs **16c**
CMS Energy **24a**
CNC Holding **8**
Coachmen Industries **14d**
Coca-Cola **6c**
Coca-Cola Bottling **6c**
Coca-Cola Enterprises **6c**
Colgate-Palmolive **6d**
Collins Foods **14a**
Comdisco **18c**
Comerica **3b**
Commerce Clearing **20b**
Commercial Intertech **15c**
Commercial Metals **16b**
Commonwealth Ed **24a**
Comm. Energy **24a**
Commtron **14b**
Community Psych **12c**
Compaq Computer **18b**
CompuCom Systems **18a**
Computer Associates **18c**
Computer Sciences **18c**
Comsat **22a**
ConAgra **10b**
Conner Peripherals **18b**
Consolidated Edison **24a**
Cons. Freightways **23d**
Consolidated Papers **19b**
Consolidated Rail **23b**
Consolidated Stores **8**
Constar International **7a**
Contel **22b**
Continental Bank **3b**
Control Data **18b**
Cooper Industries **9a**
Cooper Tire & Rubber **2c**
Coors (Adolph) **6c**
CoreStates Financial **3a**
Corning **15a**
Corroon & Black **17a**
Costco Wholesale **8**
CPC International **10b**
Crane **15a**
Crawford **17a**
Cray Research **18b**
Crestar Financial **3c**
Crompton & Knowles **4**
CrossLand Savings **17c**
Crown Cork & Seal **7a**
Crystal Brands **6a**
CSX **23b**
CUC International **18a**
Culbro **6e**
Cummins Engine **2b**

D

Dairy Mart **10c**
Dana **2b**
Danaher **15b**
Dart Group **5**
Dayton Hudson **8**
De Soto **13a**
Dean Foods **10b**
Deere **15c**
Dekalb Genetics **10b**
Dell Computer **18b**
Delta Air Lines **23a**
Deluxe **18a**
Dennison Mfg **18a**
Detroit Edison **24a**
Dexter **4**
Diamond Shamrock **11b**
Diebold **18a**
Digital Equipment **18b**
Dillard **8**
Dime Savings Bank **17c**
Disney (Walt) **14b**
Dollar General **8**
Dominion Resources
Donaldson **2b**
Dover **15c**
Dow Chemical **4**
Dow Jones **20b**
Downey Savings **17**
Dresser Industries **11**
Drug Emporium **12a**
DSC Communs. **22c**
Du Pont **4**
Duke Power **24a**
Dun & Bradstreet **20**
Duplex Products **18**
Durr-Fillauer Medical
Dynatech **18b**

E

E-Systems **9b**
Eagle Food Centers
Eagle-Picher Industri
Eastern Enterprises **2**
Eaton **2b**
Echlin **2b**
Eckerd (Jack) **12a**
Ecolab **6d**
Edison Brothers **8**
Edwards (A. G.) **17c**
EG&G **21a**
Electronic Data **18c**
Engelhard **4**
Enron **24b**
Enron Oil & Gas **11**
Equifax **17a**
Esterline **9c**
Ethyl **4**
Everex Systems **18b**
Excel Industries **2b**
Exxon **11b**

Footnotes on page 63

CORPORATE SCOREBOARD

HABETICAL LIST OF COMPANIES

ber following each company name identifies the Scoreboard category under which it is listed

8
Stores 8

ess 23c
Mtg 17a
r Board 7b
l 15a

nnon 15d
ational 5
stem 3b
3b
corp 3d
3a
l Mgmt 17a
e Bancorp 3d
ca Bank 3b
c
a 3c
r 3a
ts 14d
ess 24a
16b

c
10c
a
3b
4a
MoRan 4
per 16c
om 6a
3
ies 5

o

tainer 7b

2b
ma 5
omics 1
tric 5
5
ument 9b
10b
ors 2a
ation 10c
ic Uts 24a
al 9c

up 9a
ug 12a
s 21b
4
fic 19a
cts 10b
tific 18c
eum 21b
10c

H) 19b
:
get 14c
17c
'c
F.) 4
e & Rubber 2c
s 15c
) 4
y 11c

Grainger (W. W.) **21b**
Graphic Industries **21d**
Great American Mgmt **4**
Great A&P **10c**
Great Lakes Chemical **4**
Great Western **17c**
Greif Bros **7b**
Greyhound Dial **5**
Grubb & Ellis **13b**
GTE **22b**

H

Hancock Fabrics **8**
Handleman **21e**
Hanna (M. A.) **4**
Hannaford Brothers **10c**
Harland (John H.) **18a**
Harley-Davidson **14d**
Harnischfeger **15c**
Harsco **15a**
Hartford Steam **17b**
Hartmarx **6a**
Hasbro **14d**
Hawaiian Electric **24a**
Hechinger **8**
Heekin Can **7a**
Heilig Meyers **6b**
Heinz (H. J.) **10b**
Helene Curtis Industries **6d**
Hercules **4**
Hershey Foods **10b**
Hewlett Packard **18b**
Hexcel **15a**
Highland Superstores **6b**
Hillenbrand **15a**
Hillhaven **12c**
Hills Department Stores **8**
Hilton Hotels **14c**
Holly **11b**
Home Depot **8**
Home Shopping **8**
HomeFed **17c**
Homestake Mining **16c**
HON Industries **18a**
Honeywell **9c**
Horizon Industries **15d**
Hormel (Geo. A.) **10b**
Houghton Mifflin **20b**
House of Fabrics **8**
Howell **21b**
Hubbell **9a**
Hudson Foods **10b**
Huffy **14d**
Hughes Supply **13a**
Humana **12c**
Hunt (J. B.) **23d**
Huntington Bancshares **3b**

I

IBM **18b**
IBP **10b**
Illinois Power **24a**
Illinois Tool Works **15a**
Inacomp Computer **18a**
Ingersoll-Rand **15c**
Inland Steel **16b**
Inmac **18c**
Inspiration Resources **16c**
Intel **9d**
Intelligent Electronics **18a**
Inter-Regional Fin **17a**
Interco **6a**
Interface **15d**
Intergraph **18c**
Intl. Dairy Queen **14a**
International Flavors **6d**
Intl. Multifoods **10a**
International Paper **19b**
Intl. Shipholding **23d**
Intl. Technology **21e**
Interpublic Group **21d**
ITT **5**

J

J. P. Industries **2b**
Jacobs Engineering **21a**
Jacobson Stores **8**
James River **19b**
Jamesway **8**
Johnson & Johnson **12d**
Johnson Controls **9c**
Johnson Worldwide **14d**
JWP **21e**

K

K mart **8**
Kamon **1**
Kansas City Southern **23b**
Karcher (Carl) **14a**
Kaufman & Broad **13b**
Kellogg **10b**
Kellwood **6a**
Kelly Services **21e**
Kennametal **15b**
Kerr-McGee **11b**
KeyCorp **3a**
Keystone Cons. **16b**
Keystone Intl **15a**
Kimberly-Clark **19b**
King World **14b**
Knight-Ridder **20b**
Kroger **10c**

L

L. A. Gear **6a**
La-Z-Boy Chair **6b**
Ladd Furniture **6b**
Lafarge **13a**
Lamson & Sessions **2b**
Lance **10b**
Lands' End **8**
LDI **18c**
Lennar **13b**
Leslie Fay **6a**
Lilly (Eli) **12b**
Limited **8**
Litton Industries **9b**
Liz Claiborne **6a**
Lockheed **1**
Loctite **4**
Lone Star Techs **16b**
Longs Drug Stores **12a**
Longview Fibre **7b**
Loral **9b**
Lotus Development **18c**
Louisiana Land **11b**
Louisiana-Pacific **19a**
Lowe's **8**
LSI Logic **9d**
Lubrizol **4**
Luby's Cafeterias **14a**
Lukens **16b**
Lyondell **4**

M

Mack Trucks **2a**
Macy (R. H.) **8**
Magma Copper **16c**
MAI Basic Four **18b**
Manor Care **12c**
Manufacturers Hanover **3a**
Manville **13a**
Mapco **11b**
Marcade Group **6a**
Marion Merrell Dow **12b**
Mark IV Industries **15a**
Marriott **14c**
Marsh & McLennan **17a**
Marshall Industries **21b**
Martin Marietta **1**
Mattel **14d**
Maxtor **18b**
Maxxam **16a**
May Department Stores **8**
Maytag **6b**
MCA **14b**
McClatchy News **20b**
McCormick **10b**
McDonald's **14a**
McDonnell Douglas **1**
McGraw-Hill **20b**
MCI Communications **22a**
McKesson **12a**
Mead **19b**
Media General **20b**
Medtronic **12d**
Mellon Bank **3a**
Melville **8**
Mentor Graphics **18c**
Mercantile Stores **8**
Merck **12b**
Meridian Bancorp **3a**
Merrill Lynch **17a**
Merry-Go-Round **8**
Meyer (Fred) **8**
MGM/UA **14b**
Michigan National **3b**
MicroAge **18a**
Micron Technology **9d**
Micropolis **18b**
Microsoft **18c**
Midlantic **3a**
Miller (Herman) **18a**
Millipore **9c**
Mine Safety **12d**
Minnesota Mining **15a**
Mitchell Energy **11b**
Mitel **22a**
MNC Financial **3a**
Mobil **11b**
Modine Mfg **2b**
Monsanto **4**
Morgan (J. P.) **3a**
Morgan Products **21b**
Morgan Stanley **17a**
Morrison **14a**
Morrison Knudsen **21a**
Motorola **9b**
Multimedia **20a**
Murphy Oil **11b**

N

Nalco Chemical **4**
Nash Finch **10a**
Nashua **7b**
National City **3b**
National Health **12c**
National Medical **12c**
National Semicond **9d**
National Service **9a**
Navistar International **2a**
NBD Bancorp **3b**
NCH **6d**
NCNB **3c**
NCR **18b**
Neiman-Marcus Group **8**
New England Electric **24a**
New York State E&G **24a**
New York Times **20b**
Newell **15a**
Newmont Gold **16c**
Newmont Mining **16c**
Nicor **24b**
Nike **6a**
Noland **13a**
Nordson **15c**
Nordstrom **8**
Norfolk Southern **23b**
Northeast Utilities **24a**
Northern Trust **3b**
Northrop **1**
Northwestern Steel **16b**
Norwest **3b**
Novell **18c**
Nucor **16b**
Nynex **22b**

O

Occidental Pet. **11b**
Office Depot **21b**
Ohio Edison **24a**
Olin **4**
Oneida **15a**
Oneok **24b**
Oracle Systems **18c**
Oregon Steel Mills **16b**
Orion Pictures **14b**
Oryx Energy **11b**
Outboard Marine **14d**
Owens & Minor **12d**
Owens-Corning **13a**
Oxford Industries **6a**

P

Paccar **2a**
Pacific G&E **24a**
Pacific Telesis Group **22b**
PaineWebber Group **17a**
Pall **5**
Panhandle Eastern **24b**
Paramount Comms. **14b**
Penn Central **5**
Penn Traffic **10c**
Penney (J. C.) **8**
Pennsylvania Power **24a**
Pennzoil **11b**
Pentair **15c**
Pep Boys **8**
PepsiCo **6c**
Perkin-Elmer **9c**
Perry Drug Stores **12a**
Petrie Stores **8**
Pfizer **12b**
Phelps Dodge **16c**
PHH **23c**
Philadelphia Electric **24a**
Philip Morris **6e**
Philips Industries **15a**
Phillips Petroleum **11b**
Phillips-Van Heusen **6a**
Pier 1 Imports **6b**
Pilgrim's Pride **10b**
Pinnacle West **24a**
Pioneer Hi-Bred **10b**
Pioneer Standard **21b**
Pitney Bowes **18a**
Pittston **11a**
PNC Financial **3a**
Polaroid **14d**
Policy Management **17a**
Pope & Talbot **19a**
Portland General **24a**
Potlatch **19b**
PPG Industries **13a**
Precision Castparts **16c**
Premier Industrial **21b**
Preston **23d**
Price **8**
Primerica **17a**
Progressive **17b**
Promus **14c**
Provident Life **17b**
PSI Resources **24a**
PS Co. of Colorado **24a**
Public Service Ent **24a**
Puget Sound Power **24a**
Pulitzer Pub **20b**

Q

Quality Food Centers **10c**
Quanex **16b**
Quantum **18b**
QVC Network **8**

R

Ralston Purina **10b**
Raytheon **9b**
Reebok International **6a**
Republic New York **3a**
Rexene **4**
Reynolds & Reynolds **18a**
Reynolds Metals **16a**
Richfood Holdings **10a**
Rite Aid **12a**
RJR Nabisco **6e**
Roadway Services **23d**
Rochester G&E **24a**
Rochester Telephone **22b**
Rockwell International **5**
Rohm & Haas **4**
Rohr Industries **1**
Rollins **21e**
Rollins Truck Leasing **23c**
Rose's Stores **8**
Ross Stores **8**
RPM **13a**
Rubbermaid **15a**
Ruddick **10c**
Russell **6a**
Ryder System **23c**
Rykoff-Sexton **10a**

S

Safeco **17b**
Safety-Kleen **21e**
Safeway **10c**
Salem Carpet Mills **15d**
San Diego G&E **24a**
Santa Fe Pacific **23b**
SCEcorp **24a**
Schering-Plough **12b**
Schlumberger **11c**
Schulman (A.) **4**
Schwab (Charles) **17a**
Scott Paper **19b**
Scripps (E. W.) **20b**
Scripps Howard **20a**
Seagate Technology **18b**
Sealed Air **15a**
Sears, Roebuck **8**
Seaway Food Town **10c**
Security Pacific **3d**
Seneca Foods **10b**
Service Corp. Intl. **21e**
Service Merchandise **8**
Shaw Industries **15d**
Shawmut National **3a**
Shearson Lehman **17a**
Sherwin-Williams **13a**
Shoney's **14a**
Signet Banking **3c**
Silicon Graphics **18b**
Sizzler Restaurants **14a**
Skyline **13b**
Smith (A. O.) **2b**
Smith Corona **18a**
Smith International **11c**
Smith's Food & Drug **10c**
Smithfield Foods **10b**
Smucker (J. M.) **10b**
Snap-on Tools **15b**
Society **3b**
Sonat **24b**
Sonoco Products **7b**
Southdown **13a**
Southern **24a**
So. New Eng. Tel. **22b**
Southwest Airlines **23a**
Southwestern Bell **22b**
Southwestern PS **24a**
Sovran Financial **3c**
Spiegel **8**
Sprague Technologies **9d**
Springs Industries **15d**
SPX **15b**
Square D **9a**
Standard Federal **17c**
Standard Register **18a**
Stanley Works **15b**
State Street Boston **3a**
Stepan **6d**
Sterling Chemicals **4**
Stewart & Stevenson **21c**
Stone Container **7b**
Storage Technology **18b**
Stratus Computer **18b**
Strawbridge & Clothier **8**
Stride Rite **6a**
Student Loan Mktg. **17a**
Subaru of America **23c**
Sun **11b**
Sundstrand **1**
SunTrust Banks **3c**
Super Food Services **10a**
Super Valu Stores **10a**
Supermarkets Gen **10c**
Syntex **12b**

T

Tambrands **6d**
Tandem Computers **18b**
Tandon **18b**
TBC **21b**
TCF Financial **17c**
Tech Data **18a**
Teco Energy **24a**
Tecumseh Products **13a**
Tektronix **9c**
Teledyne **5**
Teleflex **15a**
Temple-Inland **7b**
Tenneco **5**
Terex **15c**
Texaco **11b**
Texas Industries **13a**
Texas Instruments **9d**
Textron **5**
Thomas & Betts **9a**
Thomas Industries **9a**
3Com **18b**
3M **15a**
Tiffany **8**
Time Warner **20b**
Times Mirror **20b**
Timken **15c**
TJ International **13a**
TJX **8**
Tonka **14d**
Topps **20b**
Torchmark **17b**
Toro **6b**
Tosco **11b**
Town & Country **15a**
Toys 'R' Us **8**
Transcapital Fin. **17c**
Tredegar Industries **15a**
Tribune **20b**
Trinity Industries **23c**
Trinova **15a**
TRW **5**
Tultex **6a**
Tyco Laboratories **15c**
Tyson Foods **10b**

U

U. S. Bancorp **3d**
U. S. Shoe **8**
U. S. Surgical **12d**
UAL **23a**
UJB Financial **3a**
Unifi **15d**
Union Camp **19b**
Union Carbide **4**
Union Electric **24a**
Union Pacific **23b**
Unisys **18b**
United Dominion **15a**
United Stationers **21b**
United Technologies **1**
United Telecomms **22a**
Univar **21b**
Universal Foods **10b**
Universal Health **12c**
UNR Industries **16b**
Unum **17b**
Upjohn **12b**
US West **22b**
USAir Group **23a**
USG **13a**
UST **6e**

V

ValCom **21e**
Valero Energy **11b**
Valley National **3d**
Valmont Industries **15a**
Valspar **13a**
Van Dorn **7a**
Varian Associates **9b**
VF **6a**
Vicorp Restaurants **14a**
Village Super Market **10c**
Vista Chemical **4**
VLSI Technology **9d**
Volt Inf. Sciences **21e**
Vons **10c**
Vulcan Materials **13a**

W

Waban **8**
Wal Mart Stores **8**
Walgreen **12a**
Wallace Computer **18a**
Warner-Lambert **12b**
Washington Post **20b**
Waste Management **21c**
Watkins-Johnson **9b**
Wausau Paper Mills **19b**
Weirton Steel **16b**
Weis Markets **10c**
Wellman **4**
Wells Fargo **3d**
West **7a**
Westcorp **17c**
Western Publishing **20b**
Westinghouse Electric **9a**
Westmoreland Coal **11a**
Westvaco **19b**
Wetterau **10a**
Weyerhaeuser **19a**
Wheelabrator Techs **21a**
Wherehouse Ent. **14d**
Whirlpool **6b**
Whitman **5**
Wholesale Club **8**
Wickes **15d**
Wicor **24b**
Willamette Industries **19a**
Willcox & Gibbs **21b**
Winnebago Inds. **14d**
Wisconsin Energy **24a**
Witco **4**
Wolohan Lumber **21b**
Woolworth **8**
Worthington Inds **16b**
WTD Industries **19a**
Wyle Laboratories **21b**

XYZ

Yellow Freight **23d**
Zenith Electronics **18b**
Zurn Industries **21a**

Footnotes on page 63

GENENTECH: A TEXTBOOK CASE OF MEDICAL MARKETING

How the drugmaker blunted the impact of a study that could have devastated its $2,200-a-dose TP

It's a marketing executive's nightmare. You've priced your company's main product 11 times as high as the competition, and like any smart strategist, you defend this breathtaking markup by trumpeting your product's unique properties. But then your customers get compelling evidence that your product is no better than its vastly cheaper rival.

That specter could come to haunt any seller of premium products, whether luxury cars or single-malt whiskeys. In this case, though, the marketer is Genentech Inc., the pioneering biotechnology company, and its product is the world's best-known biotech drug, tissue plasminogen activator (TPA). Genentech introduced it in 1987 as a fast-acting agent to clear the clots that cause heart attacks. At $2,200 a dose, TPA accounted for about half of Genentech's 1989 revenues of $400 million. In March, cardiologists learned the details of a study that showed TPA was no more effective in saving lives than streptokinase, a rival drug that Germany's Hoechst sells for only $200 a dose.

The news was a stunner to Wall Street. On Mar. 8, the day the study was released, Genentech's stock fell 1⅛, to 26⅛, before trading was halted on the New York Stock Exchange. Many analysts expected hospitals and insurers to force a sharp cut in TPA's price.

'GLOVES ON.' Four months later, though, Genentech has scored a surprising marketing coup. It's still selling TPA at $2,200 a dose. TPA's second-quarter sales, at $48.3 million, were off 12% from the first quarter, but they're still up slightly from the same period a year ago. And now analysts are talking about future sales growth of 10% to 15% a year (chart). "Genentech came out with the gloves on," says analyst Peter F. Drake of Vector Securities International.

How Genentech managed to blunt the impact of such damaging news is a textbook case in medical marketing. It's a rarefied world, where expensive drug trials and doctors' symposia, not jingles and coupons, are the critical tools of persuasion. But it's marketing nonetheless. And with TPA, Genentech had plenty of reason to get its point across: The company spent more than $150 million developing the drug, and it staked much of its reputation on TPA.

Genentech developed TPA to address a critical need for speed in heart-attack treatment. When a clot blocks a vital artery to the heart, the muscle is deprived of oxygen and begins to die. "Time is muscle" is the axiom in treating heart-attacks. Injected through an intravenous drip, TPA can begin dissolving a victim's clot within thirty minutes, and Genentech says it's 50% more effective than streptokinase, an older drug.

GENENTECH SAYS ITS INTRAVENOUS CLOT-BUSTER IS 50% MORE EFFECTIVE THAN AN OLDER R

In its first full year on the market, the new drug sold a record $188 million.

Growth slowed, however, as it became apparent that original estimates of a $1 billion market of a million patients a year were inflated. Victims often reach a hospital too long after attacks have started to benefit from TPA. And TPA can create a slight risk of bleeding in the brain. Many cardiologists were leery of using a new drug with even a slight chance of such a disastrous side effect, so some opted for the more familiar and cheaper streptokinase (table).

By early last fall, TPA's annual sa were approaching the $200 mill range—impressive, but no blockbust But Genentech estimated that an ann market of 300,000 patients remained tapped. And it looked forward to results of a massive trial in Euro dubbed GISSI-II, that compared TPA's fectiveness with the Hoechst drug. G entech scientists were confident would prove superior, giving Genent a powerful new marketing tool.

Then in November, at the Ameri Heart Association meeting, Genent executives figured out that the st would probably show TPA was no m effective than streptokinase in sav lives. Given streptokinase's much lo price, it would be Hoechst that score major victory. Yet Genentech Hoechst would gain the upper hand o because of a deep flaw in the Europ study. "We had a problem," says Gen tech marketing chief James M. Gow

What tipped off Gower and other G entech managers were two separ American studies by cardiologists A Ross at George Washington Univers

tanley Bleiche
ane. The stud-
amined the ef-
of heparin, an
ensive antico-
t that keeps
s open after
st clears them
s. The studies
d something
ech had not
d: TPA works
hen heparin is
stered at the
ime.

ne U. S., doctors usually adminis-
parin simultaneously with TPA.
ouble was that in the European
omparing TPA and streptokinase,
s followed the custom there of in-
heparin 12 hours later. Genen-
ad known of this protocol, but be-
Coss' and Bleiche's findings, the
seemed a minor consideration.
with heparin obviously of critical
ance, that delay posed a big prob-
meant TPA's performance could
ed. And streptokinase, which does
em as dependent on heparin to

IE CLOT-BUSTERS

PLASMINOGEN ACTIVATOR (TPA)

987 by Genentech at $2,200 a dose,
ne-spliced version of the body's
sting enzyme. Though TPA breaks
ffectively, it poses a small risk of
erious bleeding

EMINASE

Beecham rolled out Eminase in Jan-
00 a dose. It can be injected more
TPA, and its effects last longer. In
inase is even administered to vic-
ulances. It can trigger allergic reac-
wer blood pressure

STREPTOKINASE

ls this older drug for only $200 a
gh streptokinase is effective, doc-
about side effects. It, too, can
rgic reactions and lower blood pres-
ously

DATA: COMPANIES, BW

vorking, could benefit greatly.
-II, far from being a marketing
the arm, was shaping up to be a
etween the eyes. So Gower, who
GISII-II's findings would be re-
in the spring, devised a strategy
ermine its impact.
r the AHA meeting, Gower quickly
ed cardiologists for their views on
n. The survey showed most felt
ug should be administered simulta-
y with TPA. Then Genentech's 278
representatives fanned out to ex-
o 7,000 doctors how the heparin issue could render GISSI-II irrelevant to their practices.

Genentech also used a clever distribution tactic to prepare for GISSI-II and for the introduction of a new rival drug, Eminase. In January, the company temporarily gave hospital pharmacies a longer period in which to pay for TPA. The move encouraged them to stock up on the drug as Genentech prepared for a challenging spring.

The showdown came in New Orleans just before the March American College of Cardiology meeting. There, at a Genentech-sponsored symposium, thousands of cardiologists heard the Italian scientists who conducted GISSI-II discuss their findings. But then, immediately afterwards, Alan Ross got up and discussed the critical importance of heparin use.

DOUBTERS. After GISSI-II's findings came out, some cardiologists did abandon TPA. Before learning the results of the study, cardiologist Christopher L. Wolfe at the University of California at San Francisco Hospital says he "could count on one hand the number of times we used streptokinase." But after GISSI-II, Wolfe figured TPA's advantage was too slight to justify its price: Now, UCSF uses streptokinase almost exclusively.

Wolfe appears to be an exception, however. Many doctors left New Orleans doubting GISSI-II's importance. That doubt has clearly helped TPA, which, with two-thirds of the market, is the established brand. As Robert J. Carney, a Tyler (Tex.) cardiologist, puts it: "The study wasn't applicable to today's practice." And Jeffrey L. Anderson, professor of medicine at the University of Utah, sees Genentech's symposium as "the kind of aggressive strategy that has maintained the market."

In addition to streptokinase, though, Gower must now worry about SmithKline Beecham's Eminase, a new $1,700-a-dose version of streptokinase that can be administered faster than TPA, through hypodermic injection. So far, though, Eminase isn't a significant factor. "Eminase is taking a beating," with inventories rising and reorders down, explains Vector's Drake. SmithKline says sales are on target.

A trial is now comparing TPA with Eminase and streptokinase. An unfavorable result would require another marketing offensive by Genentech, so many threats to TPA remain. But thanks to its fast action this year, Genentech still has a market worth defending.

By Joan O'C. Hamilton in San Francisco

1	Exxon
2	General Motors
3	Mobil
4	Ford Motor
5	IBM
6	Texaco
7	E.I. du Pont
8	Standard Oil (Ind.)
9	Standard Oil of Cal
10	General Electric
11	Gulf Oil
12	Atlantic Richfield
13	Shell Oil
14	Occidental Petroleum
15	U.S. Steel
16	Phillips Petroleum
17	Sun

27 million Americans can't read. And guess who pays the price.

Every year, functional illiteracy costs American business billions.

But your company can fight back...by joining your local community's fight against illiteracy. Call the Coalition for Literacy at toll-free **1-800-228-8813** and find out how.

You may find it's the greatest cost-saving measure your company has ever taken.

A literate America is a good investment.

Ad Council Coalition for Literacy

THE $6 TRILLION MONSTER THAT'S STALKING WASHINGTON

Now, the government is aiming to prevent S&L-like crises in a host of loan-guarantee programs

If you're confused and angry every time the government bumps up the cost of the savings and loan bailout by $50 billion or so, brace yourself. Federal guarantees, the same explosive element that fueled the thrift fiasco in the guise of deposit insurance, lurk in myriad other programs as well. Besides the $2.9 trillion of bank and S&L deposits insured by Uncle Sam, there's a further $2.8 trillion of loan guarantees and similar federal programs primed to blow up when you least expect it.

The latest case in point: On July 24, the Education Dept. said it might have to pony up $1 billion as a result of losses from a little-known player in the byzantine network of lenders and guarantors in the $54 billion U. S. Guaranteed Student Loan Program. The Higher Education Assistance Foundation (HEAF) in Overland Park, Kan., a private company that issues federally authorized guarantees, approved too many loans that went sour. Now, the government is likely to be stuck making good to institutions holding those loans. Sound familiar?

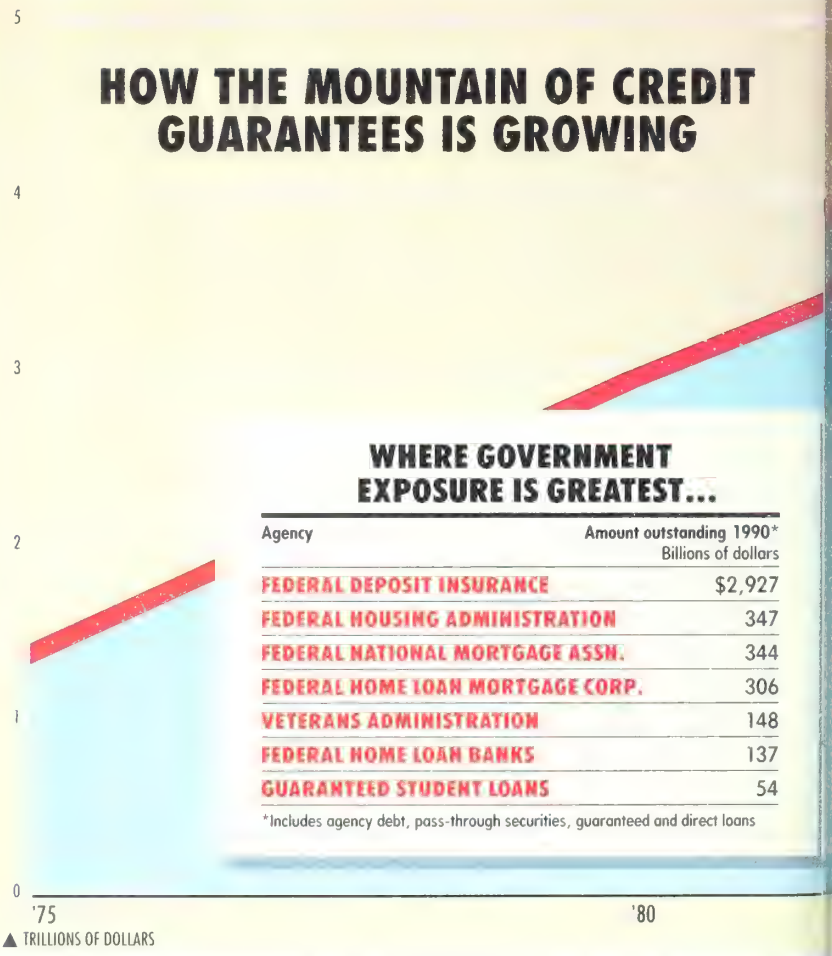
It certainly does to the Administration and anxious members of Congress who are trying to avoid getting singed by the S&L mess this election year. The mounting losses involving other federal guarantees are adding fresh tinder to a long-smoldering debate. The focus is on the vast array of programs in which the government lends its good name to help make credit available to recipients such as students, farmers, homeowners, and others. While the government sometimes makes direct loans, Congress and the Administration overwhelmingly have chosen what seemed like the most painless of all techniques: slapping a federal guarantee on a loan made by a bank or other private party. Once done, the programs rarely became subject to the scrutiny afforded spending programs in the budget.

The Bush Administration is clearly worried that these IOUs may come home to roost, as they have with the thrift rescue. "We learned the hard way from this experience," says Treasury Under Secretary Robert R. Glauber. So officials are trying, on various fronts, to stop the helter-skelter growth of many programs and reduce the government's exposure. These moves come in addition to a stream of recent proposals to reform deposit insurance by limiting the number or types of accounts covered.

The Congressional Budget Office wants to put the costs of the credit programs on budget, on the theory that lawmakers will be less eager to approve new programs or expand existing ones. The Treasury Dept. also is trying to insulate itself from the private entities that benefit from implied governm support, including the Federal Natio Mortgage Assn., the Federal Ho Loan Mortgage Corp., and the Stud Loan Marketing Assn. You may kn them as Fannie Mae, Freddie Mac, a Sallie Mae.

Taming a $6 trillion monster is a he ic task, even by Washington standar and so far, the record is spotty, at be In one previous attempt, the governm tried to cut costs and limit exposure enlisting private partners. The Fede Housing Administration, for example, sures lenders against default on m

HOW THE MOUNTAIN OF CREDIT GUARANTEES IS GROWING



WHERE GOVERNMENT EXPOSURE IS GREATEST...

Agency	Amount outstanding 1990* Billions of dollars
FEDERAL DEPOSIT INSURANCE	$2,927
FEDERAL HOUSING ADMINISTRATION	347
FEDERAL NATIONAL MORTGAGE ASSN.	344
FEDERAL HOME LOAN MORTGAGE CORP.	306
VETERANS ADMINISTRATION	148
FEDERAL HOME LOAN BANKS	137
GUARANTEED STUDENT LOANS	54

*Includes agency debt, pass-through securities, guaranteed and direct loans

of up to $124,875. In 1983, the FHA out private insurers who would 20% of any loan losses. With own capital at risk, the theory underwriting standards would im- and defaults diminish.

he contrary, bad loans did in sev- surers, and the FHA had to make n $900 million worth of defaulted Now, the FHA is abandoning pri- nsurance. It wants to boost the id to it by borrowers and increase nimum downpayments. The FHA al would increase to 4.3%, from the up-front premiums on mort- with low downpayments.

MINED.' In many cases, however, the costs to people who benefit ne guarantees runs counter to the s for creating the programs. It's a already being made in efforts to the FHA proposal for higher pre- "We're raising the costs so much he FHA's] ability to do its social undermined," says Warren Lasko, ve vice-president of the Mortgage s Assn.

Education Dept., with the HEAF n its hands, is sure to encounter ne dilemma. Like the FHA, it tried ance itself from risk by acting as urer of guaranteed student loans. HEAF, one other private guarantor, and numerous state agencies are the primary insurers. Sallie Mae was created in 1972 to buy up loans wholesale from banks, as an incentive to keep credit to students plentiful. When loans in Sallie Mae's portfolio default, it must look to HEAF and the other primary guarantor to make good on defaulted paper. To hold the insurers' feet to the fire, the Education Dept. doesn't fully reimburse losses if defaults in any one year exceed 5% of a guarantor's portfolio.

That didn't work in HEAF's case. In search of profits, HEAF held itself out as a nationwide insurer, even though it could have kept riskier loans off its books by narrowing its geographical coverage. "HEAF aggressively pursued growth but learned too late in the cycle that it was hard to pull back," says Jean S. Frolicher, executive director of the National Council of Higher Education Loan Programs. Once HEAF was set up to do business in a state, Education Dept. rules required it to accept all comers, even if it meant loading up on loans to trade-school students, who statistics show are the most prone to default.

As HEAF's percentage of defaults rose, the Education Dept. cut back reimbursements, bringing the guarantor to the brink of insolvency. So HEAF's guarantees have become the government's promises, and the Education Dept. said its hit could be as high as $1 billion. The Education Dept. is dickering with Sallie Mae over who will administer the $10 billion in loan guarantees in HEAF's portfolio. Sallie Mae has about $3 billion worth of HEAF-backed loans and also lent HEAF $800 million. Sallie Mae could end up losing about $50 million from the HEAF debacle, according to analysts' estimates. That's not a grave wound, since it earned $348 million before taxes last year. But the affair prompted investors to dump Sallie Mae stock, which has slid about 18% in the last two weeks, to 44⅝.

Concerns over Sallie Mae's health, even if overblown, point to the government's dilemma with the private companies it has chartered to do its handiwork. The U. S. doesn't explicitly guarantee the debt of companies such as Sallie, Fannie, and Freddie, but the market expects it to do so. Indeed, when the Farm Credit System—the linchpin of a federally backed farm lending network—was insolvent in 1987, the U. S. bailed it out with $4 billion.

To head off similar disasters, the Administration is pressing for new rules that would make the government-chartered companies raise more private capital. The Treasury wants to require them to obtain AAA ratings from two credit-rating agencies without taking into account any government backing. Under such a scheme, only Sallie Mae and the Federal Home Loan Banks would likely be at "the high end of investment grade," according to Frank Rizzo, managing director of Standard & Poor's Corp. Currently, all government-chartered companies are deemed AAA because of the U. S. affiliation.

Supporters of Fannie and Freddie contend that holding them to the AAA standard would be far too stringent. Only a handful of U. S. institutions qualify for a AAA rating. "We ought not to ask them to be even more Catholic than the Pope," says Norman D. Flynn, president of the National Association of Realtors.

As the thrift industry started to deteriorate a decade ago, reform efforts ran into similar complaints. The government's backing of thrift deposits allowed S&L managers to ignore warnings about the soundness of their activities and produced the current crisis. Is history about to repeat itself? How Washington handles the latest round of reform proposals will show whether it has learned from the thrift disaster.

By Catherine Yang in Washington, with David Zigas in New York and Vicky Cahan in Washington

...AND WHERE THE LOSSES ARE MOUNTING

gency	Estimated 1989-90 losses Billions of dollars
EDERAL DEPOSIT INSURANCE	$56.7*
EDERAL HOUSING ADMINISTRATION	13.1
ARMERS HOME ADMINISTRATION	6.0
UARANTEED STUDENT LOANS	4.5
ETERANS ADMINISTRATION	3.9
MALL BUSINESS ASSISTANCE	1.6
OMMODITY CREDIT CORP.	0.2

Cumulative deficit, through 12/89 DATA: OFFICE OF MANAGEMENT & BUDGET

MEYER BLINDER LOOKS AT THE BRIGHT SIDE: BANKRUPTCY

The King of Penny Stocks still faces a host of legal troubles

In the high-flying 1980s, Blinder Robinson & Co. and Meyer Blinder, its flamboyant president, seemed all but invincible. Despite repeated assaults from the Securities & Exchange Commission and state regulators, Blinder managed not only to survive but to thrive. But now it seems Meyer Blinder's adversaries will have the last laugh.

Blinder Robinson appears headed toward that great boiler room in the sky. On July 30, its parent, Intercontinental Enterprises Inc., sought Chapter 11 protection for Blinder Robinson. But at the request of the Securities Investor Protection Corp., a federal judge on Aug. 1 instead ordered the appointment of a trustee to run the brokerage and eventually liquidate the company. Attorneys for Blinder objected and may appeal, but in an interview at the courthouse it was clear that the King of Penny Stocks has abdicated. "It gets to the point where you have to give up, so I gave up. I was forced to file [for Chapter 11] by the SEC's constant harassment over 10 or 12 years," Blinder said defiantly. "I blame the media and the regulators. They've taken a successful business and put it into the sewer."

CROSSING SWORDS. But for Blinder, who once paid himself $7 million in a single year, the trouble may be only beginning. He faces 11 criminal counts of racketeering, money laundering, and securities and wire fraud in connection with stock offerings. In February, a federal grand jury in Las Vegas returned indictments against Blinder and four associates. All five deny the charges. If convicted, Blinder could be sentenced to up to 60 years in prison.

For Blinder Robinson, the fatal blow was apparently triggered not by a regulator but by a fellow penny-stock broker, Donald L. Walford. In 1983, Walford joined a syndicate of brokers that agreed to sell a company brought public by Blinder Robinson. A dispute arose. Walford alleges that Blinder Robinson began an unwarranted legal action against his firm and that as a result Walford was forced to go out of business. In 1985, Walford filed a suit charging Blinder Robinson and its principals with m cious prosecution.

At the time, the Walford suit seem like just a drop in a veritable ocean litigation. Then, in 1988, though Me Blinder was exonerated by a jury, firm was ordered to pay $4.5 million compensation. Blinder began a series appeals that ended on July 9, when Colorado Supreme Court refused to view the judgment, now $5.7 million cause of accrued interest. Meyer Blin filed for Chapter 11 "to prevent pay any money. That's his strategy," asse Walford's attorney, Steve A. Miller. an affidavit filed with the state Supre Court, he claims that Blinder once t him: "You took me out even though SEC couldn't for years."

BUOYANT. In fact, it seemed the SEC w getting close to "taking out" the fi for good. In April, the agency suspen Blinder Robinson's license 45 days and barred it fr underwriting new issues two years. Meyer Blinder w suspended from the securit business for two years. T ruling stemmed from a year-old case in which the charged Blinder and his fi with violating securities la and manipulating the price a company called Americ Leisure. The penalties ha been stayed pending an peal. In its most recent s the SEC on July 12 charg Blinder and his company w manipulating the stock of companies over a two-year riod. The SEC is asking fo permanent injunction agai future violations as w as for the return of m than $20 million in ille profits.

Blinder Robinson is o one of dozens of penny-st firms that have gone out business in the past t years. Others can be expec to fold as the regulatory sp light intensifies. But Blin for one, is upbeat. He s he's writing a book, *The and Me*, recounting his bo with the agency. "It will come out," Blinder pledg Other adventures lie ahead was invited to go to Russia teach investing," he sa "They need my help." But less his old luck returns, Meyer Blinder who will n all the help he can get.

By Sandra D. Atchison Denver

BLINDER: 'I BLAME THE MEDIA'

BLINDER ROBINSON'S JOURNEY TO LIQUIDATION

NOV. 19, 1988 The Internal Revenue Service raids Blinder Robinson's headquarters in Englewood, Colo., in a hunt for evidence of alleged stock manipulation and money laundering

FEB. 23, 1990 A U.S. grand jury in Las Vegas indicts Meyer Blinder and four associates on charges of racketeering, securities fraud, and wire fraud

APR. 27, 1990 A Securities & Exchange Commission hearing officer orders Blinder Robinson to be suspended for 45 days and bars the firm from underwriting new securities for two years. The sanction is delayed, pending appeal

JULY 9, 1990 The Colorado Supreme Court refuses to hear Blinder Robinson's appeal of a suit by another penny-stock broker who was awarded $4.5 million against the firm

JULY 30, 1990 Blinder Robinson files for protection from creditors under Chapter 11 of the federal Bankruptcy Code

AUG. 1, 1990 A trustee is appointed to manage, and eventually liquidate, Blinder Robinson

DATA: BW

Cars as good as the Ford Taurus roll forth but once per generation."

—Car and Driver

It's not often that a car receives this kind praise. Then again, it's not often that a car e Ford Taurus comes along. And over the rs, its superb performance and innovative sign have made it a resounding success th car buyers and critics alike. As *Car and ver* put it: "This car, an established best-ler in the marketplace, established itself first in the hearts of [our] staff...." (Which y explain why Taurus has been named one *Car and Driver's* "Ten Best Cars" for five aight years.)

But you can rest assured that we're not ting on our laurels. In fact, Taurus now of-s advanced features like optional anti-lock kes—proof that this design leader is dedi-ed to *staying* a leader. Ford Taurus. The xt car of its kind may be a generation away.

Transferable 6/60 powertrain warranty.

Covers you and future owners on major powertrain components for 6 years/60,000 miles. Ask to see a copy of this limited warranty at your Ford Dealer.

Best-built American cars.

The best-built American cars are built by Ford. This is based on an average of consumer-reported problems in a series of surveys of all Ford and competitive '81-'89 models designed and built in North America. At Ford, "Quality is Job 1."

1990 Taurus comes equipped with a driver air bag supplemental restraint system.

Ford Taurus

Have you driven a Ford...lately?

Ford

kle up—together we can save lives.

INVESTMENT BANKING

RICE AND DUBILIER WILL TRY TO IMPROVE ON IBM's MARKETING TECHNIQUES

GIVE ME YOUR TIRED, YOUR LOW-TECH BUSINESSES . . .

Can Clayton & Dubilier's latest LBO reap profits from the prosaic?

During the 1980s, Drexel Burnham Lambert Inc. invited Martin H. Dubilier to attend its annual Predator's Ball conferences in Beverly Hills. Unlike the other leveraged buyout heavyweights, who flocked to those gala events, the Clayton & Dubilier CEO shunned them. "I didn't like the hoopla, the noise, and the flashiness," he says. "We're low-key here."

Perhaps, but the New York firm is moving into the high-risk district. It agreed on Aug. 1 to buy IBM's huge low-tech business—typewriters, computer printers, and equipment parts. The estimated purchase price of $2 billion to $2.5 billion makes it by far the biggest deal in the firm's 12-year history, surpassing the $1.16 billion acquisition of Uniroyal Inc. in 1985. Analysts say the IBM businesses generate annual aftertax profits of $75 million to $150 million—with margins of about 10%, compared to IBM's 15%.

But low-tech may be risky. IBM's typewriter sales, analysts say, have fallen to 300,000 from 800,000 since the early 1980s—with IBM's share tumbling to about 30%. Clayton & Dubilier will keep the familiar IBM monicker on the typewriters, but, says one insider, "typewriters are a peanut." The firm is banking on big profits from sales of IBM printers. Here, too, it may encounter land mines. The Japanese have dominated this market for a decade. Alex Henderson of Prudential-Bache Securities notes: "It's difficult for IBM to make a lot of money in the low end, and it's behind the eight ball in the high end."

HARDBALL. IBM was marketing printers with its brand name, limiting the market. Now, Clayton & Dubilier will sell them to other companies, which may either keep the IBM name or use their own. "The big risk is that Clayton & Dubilier is now an independent player in a cutthroat industry known for commodity-type pricing, disloyal customers, and fast-changing technology," says Don Young at Sanford C. Bernstein & Co.

Dubilier believes his firm can turn the IBM laggards into stars with better s and marketing techniques. "IBM is v good at selling systems," says B Charles Ames, a Clayton & Dub partner, "but I don't believe these p ucts have had the kind of sales or m keting support that is required in competitive market." And IBM seems agree. Says spokesman Mac Jeff "The business has been profitable. we recognized there was scope greater efficiencies."

SALES PUSH. Martin Dubilier notes while IBM employs only about 35 sa people to sell these products to deal its major competitors boast "about each." To boost sales, Clayton & D lier vows to expand the company's s group to that size, triple its advertis budget, and add to the $150 million IBM spends on research and deve ment. Ames says the new owners also "take a hard look" at selling products in Third World countries."

Some analysts say Clayton & Dub is getting a good deal. "I wouldn't shocked to see profits go up signific ly," says Rick Martin at Pru-Bache. ace in the hole for the buyers is IB announcement last December to red the staff by 1,200, to about 3,500. Ma calculates that the cuts will add $75 lion in profits for Clayton & Dubi Says Joseph L. Rice, president of C ton & Dubilier: "Each equity investm is made with the expectation that it g erate a 50% compounded return."

Clayton & Dubilier amassed a $1.2 lion buyout fund last year to do this of a deal. Wall Street sources say firm provides equity of $500 million about 20% of the total. About $1.5 bil comes from loans from a bank sy cate. The remaining $500 million wil raised through private placements. C ton & Dubilier says it will wind up a majority position in the new comp IBM will retain 15% ownership. The managers in the new company and lending institutions will receive a 15% each. Clayton & Dubilier will give lower-level IBM employees tificates called stock apprecia rights that entitle them to cash ments when the business eventu is taken public.

Dubilier, 63, was educated as electrical engineer. He was a con tant for McKinsey & Co. and executive at ITT Corp. The IBM will further thrust his firm into big time. "A lot of companies want to sell their low-tech busin es to solid, well-run firms— ours," Rice says. But first, Clay & Dubilier must show it can ceed where IBM couldn't.

By Jon Friedman in New

CLAYTON & DUBILIER: A NIFTY LBO RECORD

Company	Amount paid Millions	Annual return on investment
KUX MANUFACTURING 1979	$7	32%
STANLEY INTERIORS 1979	50	64
WGM SAFETY 1981	40	36
HARRIS GRAPHICS 1983	230	88
ARNOLD FOODS 1984	50	227
NEVAMAR 1984	40	47
UNIROYAL GOODRICH TIRE 1988	950	145

DATA: CLAYTON & DUBILIER INC

u can do business in Japan
hout shelling out a fortune.

any companies, the biggest
r to new markets has been the
f business trips. Restaurants can
pensive, and even the smallest
nmodations may carry oversized
Yet those willing to be a little
turous will find that traveling
ortably in Japan doesn't require
ng a suitcase full of yen.

on the bus.

bus ride from Narita Airport
not strike you as a bargain, but
ared to a $150 taxi, it is. The
marked "Airport Limousine"
t all the major hotels in Tokyo.

ep cheap.

ess hotels are a fairly new phe-
non. Catering primarily to Japanese businessmen, they're clean, functional, and conveniently located. Although vending machines replace amenities like room service, at $40 to $50 a night these hotels are a sound investment. Two major chains are the Tokyu Inn (tel. 03/406-0109) and the Washington (tel. 03/434-5211).

Food for naught.

It should come as no surprise that you'll save money eating where the locals eat. Good and reasonably priced restaurants can be found in department stores and the basements of office buildings. At lunch, ask for *teishoku*. It means special of the day, and includes rice, miso soup, salad, meat or fish, and dessert—all for around five dollars. *Ramenya* and *sobaya* (noodle shops) are perfect places for a quick and tasty meal.

Northwest notes.

Since your time is money too, we make it as quick and easy as possible for you to get to Japan, by offering daily nonstops from the most U.S. cities. So you can count on arriving when you want, rested and ready to do business. And we give you something else no other U.S. airline can: the knowledge, understanding and insight that comes from over 40 years of helping people do business in Asia. For international reservations, call your travel agent or Northwest at 1-800-447-4747. To find out more about doing business in Asia, call 1-800-553-2215, ext. 183.

Northwest Airlines, Inc.

NORTHWEST AIRLINES

BY GENE G. MARCIAL

BIOTECH FANS LOVE AMGEN'S ONE-TWO PUNCH

Amgen has been an investor's dream. And what Amgen has done isn't easy to duplicate, particularly in this volatile market. So far this year, the biotechnology company's stock has doubled in price, to $88 a share, after having doubled last year. And if some savvy pros are right, Amgen will scale even higher ground.

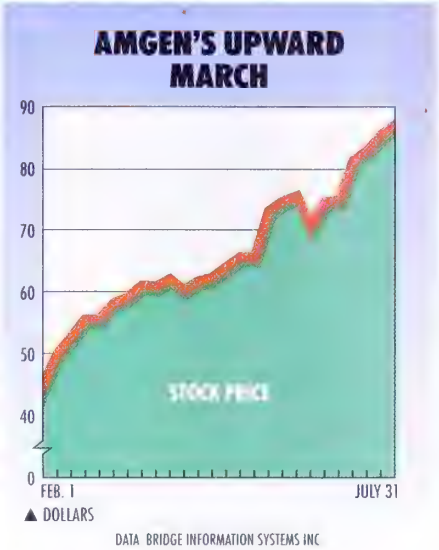
What's fueling Amgen's phenomenal surge, and what will power its continued advance? Rocketing earnings.

In a market clamoring for earnings gains, Amgen has surprised most analysts by exceeding even optimists' expectations. The company posted profits in the first quarter, ended June 30, of 57¢ a share, vs. 5¢ a year ago. Estimates had ranged from 40¢ to 45¢. And that's not all. Sales for Epogen, Amgen's first drug on the market, totaled $66.3 million, topping most analysts' estimates of $56 million. Epogen, a genetically engineered copy of a human protein that stimulates the production of red blood cells, is initially being used to treat anemia associated with chronic kidney failure.

Approved by the Food & Drug Administration in June, 1989, Epogen "should provide Amgen with annual revenues of some $200 million and an earnings base of about $2 a share," estimates Stanley Goldring, who heads Ladenburg, Thalmann's KG Securities Div. And, adds Goldring, "the best in the Amgen story is yet to come."

CANCER FIGHTER. Goldring thinks the company's newest drug, Neupogen, will be a blockbuster. It's still awaiting FDA approval, but he expects that by late this year or early next year. Neupogen, known as G-CSF, or "granulocyte colony stimulating factor," is a protein that stimulates white blood cell production. It's being tested as a primary therapy for the chronic deficiency of white blood cells in cancer patients who undergo chemotherapy.

Neupogen could eventually generate more sales and profits than Epogen because of the huge market for a chemo-alleviating drug, estimated to be $500 million in the U. S. alone. Amgen also retains much greater marketing rights for Neupogen than for Epogen. Back in 1985, Amgen gave Johnson & Johnson an exclusive license to sell Epogen in certain U. S. markets and worldwide, except Japan and China.



With these two drugs, Amgen is in the early stages of a "dramatic sales and earnings ramp-up that could carry revenues to more than $800 million and per-share net to $6.50 to $7 a share by 1993," says Goldring. For the year ending Mar. 31, 1991, he expects Amgen to earn $2.50 a share, with a $4 estimate for 1992, vs. $1.11 last year.

Don't be scared off by Amgen's pricey p-e ratio of 55, says Goldring. He thinks Amgen "is way undervalued" for an earnings-driven growth company with little debt and strong cash flow. Jim McCamant, editor of *Medical Technology Stock Letter*, notes that a whole new crowd of investors—large institutions—bought into Amgen this year, when the stock flew into the 50s. Over the next 12 to 18 months, says Goldring, it could go as high as $150 to $200 a share.

IS NICOLET LEARNING JAPANESE?

It's been downhill for the stock of Nicolet Instrument since May, when an investor group cut its stake from 6% to 3.3%. After trading as high as 17, shares of the maker of electronic testing instruments have fallen to 10. But the group's sell-off may have been premature. Recent takeovers in the analytical-instruments industry have made Nicolet attractive, particularly after its sharp drop.

In the past 90 days, three companies in the industry have been taken over. General Instrument was purchased by Forstmann, Little; Finnigan was acquired by Thermo Instruments; a Foxboro was bought by Siebe. Pl Milton Roy received a bid from Su strand, with another bid possibly the way. One buyout pro says t based on the acquisition prices of Finnigan, and Foxboro, Nicolet worth $20 to $25 a share.

Whispers have a Japanese electr ics company eyeing Nicolet. And a l investor says management is awa that, while the company's European erations are thriving, Nicolet has fail to penetrate the Japanese market.

The betting is that management v work out some form of strategic me er with the Japanese electronics co pany. And one investor group with big stake in Nicolet is said to be talks with the Japanese company abo selling it. Nicolet didn't call back.

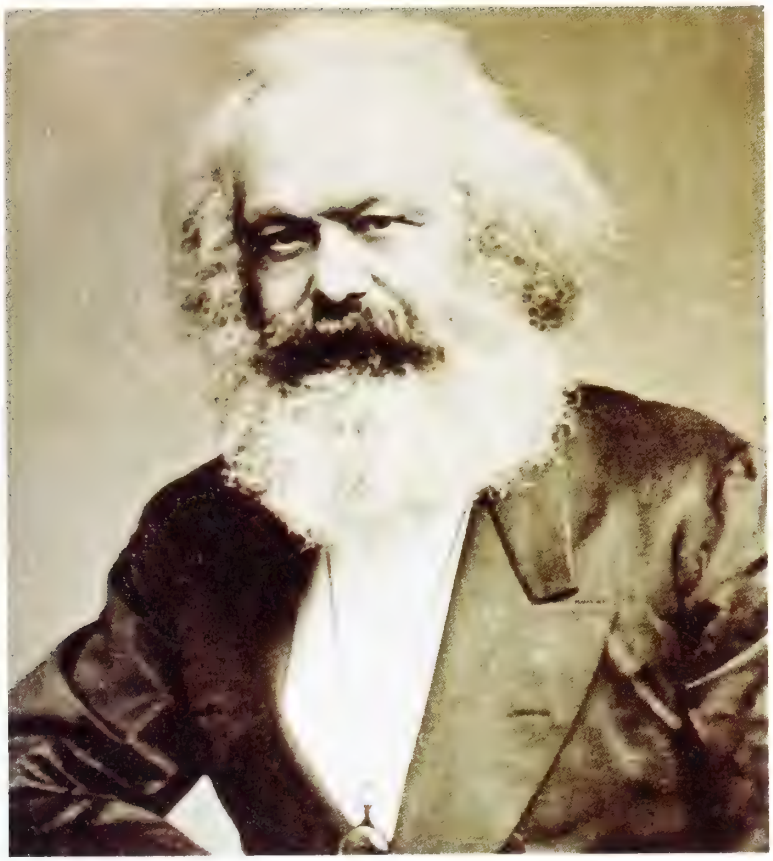
SANDY WEILL'S SAVVY SPIN-OFF

Offered by Primerica in April $16 a share, Fingerhut h caught the attention of so big investors. The stock of the natio fourth-largest mail-order company sh as high as 25 in just two months befo slipping to 23 in recent days. And so of its new believers expect the stock jump to 35 this year, based on the co pany's growth potential alone.

Fingerhut has a niche franchise w its data base of 25 million consumers low- and middle-income levels, to wh it extends credit as part of an over marketing strategy. The company se an array of merchandise, includi electronics, apparel, housewares, a furniture. Joan Finsilver, an analyst Brean Murray, Foster Securities, sa that after a brief transition peri from private to public, Fingerhut co grow at about 15% a year.

But the kicker, according to one l investor, is Sandy Weill, the chairm and CEO of Primerica, which still ow 71% of Fingerhut. When Weill to over, bets were that he would sell F gerhut, says the pro. But the ju bond market's collapse prevented W from getting the price he wanted. by spinning it off instead, says the vestor, "Weill was able to determi just how much the market would p for the company."

Weill says that he's very optimis about the outlook under the compan new president, Ted Deikel. Weill ad that he may sell more stock someti in the future but not at the curren depressed price.



WE'RE HELPING EASTERN EUROPE TRADE MARX FOR DOLLARS.

The Bush administration recently established an Eastern European Growth Fund to encourage private investment in Central and Eastern Europe. The fund is to be administered through the U.S. government's Overseas Private Investment Corporation, and Salomon Brothers has been named both its investment advisor and manager.

We're pleased to play a part in the President's initiative.

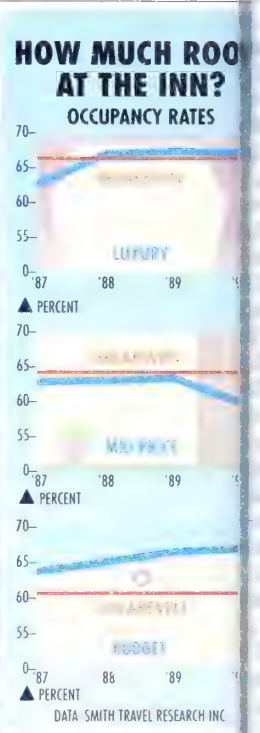
While we make markets every day, it isn't often we get the privilege of helping develop a free one.

Salomon Brothers

AMERICA'S INNKEEPERS BRACE FOR THE '90s

Here's how three chains are dealing with the new era of heightened competition and tighter credit

THE COMPANY IS RENOVATING THREE NEW YORK HOTELS



The 1980s marked a period of giddy expansion for the $60 billion hotel business. Hotels shot up across the landscape, as chains confidently banked on swelling real estate values and steady growth in business travel. Now, the industry is bedeviled by a room glut, low occupancy rates, and scarce financing. Here's how three major chains are coping.

SHERATON: SWANKY ABROAD, HO-HUM HERE

For years, ITT Sheraton Corp. has suffered from a sort of split personality. Overseas, from Shanghai to Santiago, Sheraton boasts squash courts and 24-hour butlers. Yet, back home, Sheraton often seems déclassé. "We've had a bit of a schizophrenic image," concedes Sheraton Chairman John Kapioltas.

To get things back into sync, Kapioltas and ITT Corp. Chairman Rand Araskog are spending $335 million to renovate three major Sheraton properties in the critical New York City market. And the move is long overdue. ITT spent three years squabbling with its investment partner, Equitable Life Assurance Society, over plans to spruce up two properties, the Sheraton City Squire and Centre hotels in midtown Manhattan. In May, ITT agreed to buy Equitable out for $115 million, but not before the city's economy and hotel business went bust.

ITT clearly must open up the cash spigot. Sheraton's U. S. occupancy rates so far this year are off 3.5%, to 64%—well below the 67% break-even point for the luxury segment. The decline has come even though the number of hotels under the Sheraton banner has shrunk 3%, to 467, since 1987. It's losing market share to tonier rivals. Says one travel agency head: "Sheraton doesn't always live up to the $100 or more rates it charges."

That kind of talk smarts. So, ITT is spending $145 million to overhaul the once-proud St. Regis in New York. It's adding a new tea salon and refashioning the hotel's patterned marble floor. The St. Regis is set to reopen this fall a will face off against Hilton's Wald Astoria, among others. Another $ million is being spent to completely ov haul the City Squire and Centre site

OFFSHORE EARNINGS. While its overs properties are mostly company-owr Sheraton has had huge headaches w its U. S. franchise network. In sc cases, managers ignored basic inv ments such as indoor sprinkler syste What's more, the hotel designs and a nities varied widely. Since 1986, ITT defranchised about 250 hotels and quired them to drop the Sheraton na

Happily for Sheraton, its booming ternational business is carrying the c In 1990, international operations kick in 73% of Sheraton's estimated $ million operating earnings, while rep senting only 40% of the chain's projec $837 million in revenues. Sheraton big hopes for its new hotel in Mosc set to open in 1992. And if Sheraton clean house stateside, the payoff will even more rewarding.

By Brian Bremner in New Y

MUS: FIGHTING FOR MIDDLE OF THE ROAD

ances are you've never heard of romus Companies Inc. But you ay recognize its Hampton Inns nbassy Suites hotel brands—and e seeing more of them. At a time ne hotel industry is up to its eye- rooms, Promus has embarked on g expansion strategy.

phis-based Promus is a remnant ld Holiday Inns network. A Brit- pany, Bass PLC, paid $2.23 billion Holiday Inn brand name and its se network in February of this hile the renamed Promus kept n Inns, Embassy Suites, Home- uites, and the Harrah's casino ho- Atlantic City and Nevada.

uite a portfolio, and casino-indus- es have recently hit Promus' But Promus' bigger task will be st the 260-unit Hampton Inn t was originally positioned at the d of the budget segment so it t cannibalize the Holiday Inn But now Raymond E. Schultz, CEO Hampton Inn division, wants to e head-on with the Holiday Inn rtyard by Marriott chains in the midrange market. Schultz figures ain's guest rooms are just as nd a bargain at $45 a night, com- vith Holiday Inn's $55 or so.

tz thinks he has another edge: n is a relatively cheap chain to The typical 130-room hotel runs 5 million to build, including land rnishings. That works out to be an $40,000 a room, against the or so for a larger Courtyard by t. Hence, Hampton's price edge % systemwide occupancy rate— ve the 64% industry average.

Y-PICKING.' To fund the buildup, has helped provide franchisees lending vehicle, Hospitality Capi- ap (HCG) of Atlanta. Promus has a d stake, and the rest is held by JDC Corp., a Japanese construc- npany, and Nissho Iwai Corp., a se trading company. With banks g down on real estate lending, angement has come in handy.

NOW, HAMPTON INNS IS GOING HEAD-TO-HEAD WITH HOLIDAY INNS

HCG has access to $75 million to fund Promus-related construction projects. Once the hotels are open, the construction loans are sold on the secondary market, and the proceeds are turned back to HCG to invest in new projects. HCG doesn't fund every Promus project, though. "So far, we're cherry-picking," says HCG President Michael Thurmond.

Even so, the Hampton chain should grow by up to 50 units a year through 1993. It's a daring move in a glutted field. Win or lose, Promus is likely to be one moniker you'll remember.

By Chuck Hawkins in Atlanta

SUPER 8: THE KING OF CHEAP SLEEP

Forget the fancy tea rooms and dolphin pools. For millions of American travelers, a clean room with a bed, bath, telephone, and color TV is all the hotel they need. That's why, despite all the carnage in the lodging business nowadays, no-frills budget hotels continue to thrive.

Aiming low has certainly worked wonders for Super 8 Motels Inc., a budget franchise chain that was launched in 1973 and based in Aberdeen, S. D. Its Tudor-style buildings fan out along the nation's interstate highways in 49 states.

With rates running at an average of $34 a night, the chain is a favorite of those looking to sleep on the cheap. And with companies trying to cut costs, business will only get better, says Super 8's chief executive officer, Loren D. Steele "We hear things about greed being out, that people will be more budget-conscious in the 1990s," he says.

Maybe so. But Super 8 certainly had little trouble attracting the frugal during the extravagant '80s. It went on an expansion tear last decade, with the number of hotels jumping eightfold, to 739. One big reason: The company can expand relatively inexpensively, throwing up new hotels for $1.2 million to $2 million a pop. A private company with $85 million in revenues last year, Super 8 won't disclose profit numbers. But its occupancy rate is now running just shy of 70%—well above the 64% industry average and the 61% or so break-even point for the budget segment.

BUDGET FIGHT. Super 8's supersonic growth won't be a cinch to repeat this decade. In July, French hotel giant Accor snapped up Super 8's archrival, the Motel 6 chain, for $1.3 billion. And Accor has plans to spruce up Motel 6 with, for instance, automated teller machines that will accept credit cards.

Newer rivals threaten, too. The Microtel motel chain, based in Rochester, N. Y., hopes to undercut Super 8 with bare-boned rooms priced at $25—about $10 cheaper than Super 8. "We'll build near [Super 8] and be a parasite on their business," vows Microtel President Loren G. Ansley.

Still, Super 8 continues to have a loyal following among the budget-minded. And if 1990s penny-pinching replaces 1980s greed, who needs the dolphin pools to woo guests?

By Russell Mitchell in Minneapolis

THE CHAIN EXPANDED EIGHTFOLD IN THE '80s

MEET THE DILETTANTE DEALMAKERS, GORDON AND ANN GETTY

When it comes to business, the billionaire couple have a fairly spotty track record

Gordon P. Getty's passion for opera moves him in strange ways. A guest at one Getty party several years ago recalls his first encounter with the oil heir: About 50 of San Francisco's movers and shakers were milling around an enclosed courtyard at the Gettys' spacious Pacific Heights home when suddenly, from a balcony high above, came the sound of Gordon loudly singing part of an opera he had written. The party-goers turned their heads to stare. Having won their attention, Getty waved and hollered a few words to visitors he recognized, then disappeared for the evening. Says the guest: "Everyone just said, 'Well, that's Gordon Getty . . .' "

People have been scratching their heads about the Gettys, Gordon in particular, for years. The youngest living son of J. Paul Getty, he is among the wealthiest people in America, with a net worth of around $1.2 billion. He has long been among the most unusual, too. While wife Ann gallivanted around the world, throwing parties and serving on corporate boards, he has always preferred to stay in San Francisco and write operas in his soundproof studio. His eccentricities are the stuff of San Francisco legend. "You know the saying about the rich being different?" says one acquaintance. "Well, the very rich are very different."

Now, as if to prove the point, the Gettys seem to be swapping roles. Lately, Gordon, 56, has been pouring time and money into business ventures. And the once-outgoing Ann, 48-year-old owner of Grove Weidenfeld book publishers, has retreated into more private pursuits.

RAID MAN. Last year, Gordon teamed up with a group headed by New York's Fisher real estate family to attempt a takeover of Connecticut's Emhart Corp. They lost out to Black & Decker Corp. Then, early this year, Getty turned up in London as part of a group raiding luxury clothier Aquascutum Group PLC. The retailer eventually fled to a Japanese white knight, Renown Inc. Now, Getty and the Fisher brothers are ganging up on Avon Products Inc., where they have almost 20% voting control. Getty also has stakes in a few other smaller companies, including publicly traded Chiles Offshore Corp. Both Gordon and Ann Getty declined to be interviewed by BUSINESS WEEK.

When Gordon last got actively involved in business, the result was pretty explosive. In 1984, he and Pennzoil Co. Chairman J. Hugh Liedtke decided to buy the 60% of Getty Oil Co. that Gordon didn't control for $112.50 a sha But then Getty Oil suddenly tur around and accepted a higher bid fr Texaco Inc. Pennzoil responded by su Texaco and driving it into bankrupt

Why has Gordon Getty surfaced the business scene again? San Franci businessman Paul F. Pelosi, a fri says Gordon has no "concrete agen He adds: "Gordon is just following instincts. He has always had an inter in business things. Now, he's putt more time and attention to that." others see more to it. One friend, e ing a common belief among those have done business with Getty, expla

GORDON THE RAIDER

Gordon Getty normally prefers sheet music to balance sheets, but lately he has been dabbling in business

FEBRUARY, 1989

Joins with New York's Fisher family, real estate developers, to bid for Emhart. Loses, but group makes nearly $60 million on its shares

NOVEMBER, 1989

Again joins with Fishers to buy 6.5% of Avon Products

APRIL, 1990

Shows up in shareholder group paying $15 million for 27% of Aquascutum, upscale clothier. Bought out by Renown at a $10 million profit

JULY, 1990

Getty group has accumulated nearly 20% voting control of Avon

siness activities this way: "He to prove that he is a better capi- han his father."

e Gordon has been chasing com- Ann has begun shying away usiness. The apparent reason: Her ous attempt at running Grove feld. The New York-based pub- which owns the rights to works h important authors as Samuel , is bleeding money. Getty put it block last spring, and a number ishing houses took a look. She ce taken it off the market. Most staff has defected or been fired. ure as owner "is a textbook ex- of the right intentions and the execution," says a former top ex- who quit last spring.

Getty paid about $2 million for Press in 1985. Publishing execu- say the idea originated with Weidenfeld, a 70-year-old Brit- trian publisher she had befriend- rs before at a music festival in g. Their plan was to rebuild the y with some $10 million of Getty Weidenfeld would be chairman holding company—Wheatland named for Ann's California home- and she would be president.

Grove came with a noble tradition. Apart from a backlist worth preserving, it had won some important battles over the years. In the 1950s and 1960s, owner Barney Rosset went all the way to the U. S. Supreme Court to defend his right to publish *Lady Chatterley's Lover* and several other books that had been labeled obscene.

CATCH-23. In Getty's early days at Grove, she was an active publisher. She traveled the globe wooing authors, worked the crowd at book conventions, and threw lavish parties in honor of new writers. For a time she even sat in on editors' conferences, mainly listening but sometimes making suggestions. Once, while a number of editors were excitedly insisting that the company pay hundreds of thousands of dollars for a new book by Joseph Heller, Getty argued that the *Catch-22* author might be past his prime. "Everyone else was caught up in the hype," recalls one editor. "She had some very astute observations." The book will be published by another company.

Yet there would be no storybook turnaround at Grove. Getty and Weidenfeld spent huge sums to attract authors but produced no blockbusters. Shana Alexander, for instance, got $500,000 for *Pizza Connection*—and it sold only 26,000 copies. And books weren't the only big expenditures. Getty moved Grove to fancier offices three times in two years. "It just doesn't make sense," says John G. H. Oakes, a former Grove editor who now runs Four Walls Eight Windows Publishing Co. in New York. "Even in the best of times, profit margins in this business are so slim." Some publishing experts estimate that Grove has run up losses of nearly $30 million under Getty.

Last year was an especially tumultuous one at Grove. Getty dismissed Chief Executive Dan Green, combined Grove and Weidenfeld & Nicolson, and placed Aaron Asher in charge. Asher has an impressive resumé as an editor, but he had little management experience. He lasted about a month as CEO. Frustrated, Getty switched tack again: She created a three-person management committee to run the business. It consisted of Asher, the sales director, and the chief financial officer. Grove staffers say lines of authority were confused. "It was disastrous," recalls one top executive. "After the second meeting, Ann flew off to Europe and hasn't returned [to Grove's offices] since."

Several people close to Grove Weidenfeld say the shake-ups were orchestrated by Marc E. Leland, the Gettys' top financial adviser. He denies it. Yet Grove is now being run by a Leland staffer, accountant Patrick Peyton. Leland, 52, is as much of an enigma as the Gettys. Once general counsel to the Peace Corps, he later joined the Reagan Administration as an assistant Treasury Secretary specializing in international affairs. He has been with the Gettys since the mid-1980s.

MIGHTY CLASHES. Gordon grew up surrounded by wealth, but his childhood was hardly a pleasant one. His parents were preparing to get a divorce at his birth, and he got to see his notoriously penurious father only three or four times a year. After graduating from the University of San Francisco, Gordon tried working for his father's oil company but found it unsatisfying.

He became directly involved in running Getty Oil only after his father died in 1976. Although his business experience was limited at best, his role as trustee of the family's Sarah C. Getty Trust made him responsible for 40% of Getty Oil's shares. Soon after joining the board, he began clamoring for changes to raise Getty Oil's stock price. That led to mighty clashes with Sidney R. Pe-

THE GETTYS AT HOME IN PACIFIC HEIGHTS

ANN THE PUBLISHER

Ann Getty was always best known for her flashy parties. Then she tried her hand at publishing

MARCH, 1985

Buys ailing Grove Press for around $2 million and installs British publisher George Weidenfeld as chairman

MAY, 1989

Merges still-struggling company with Weidenfeld & Nicolson and places editor Aaron Asher in charge

MARCH, 1990

Puts Grove Weidenfeld on the block. More than a dozen publishers are interested, several major houses bid

MAY, 1990

Lacking an acceptable offer, takes it off the market. Installs accountant as acting CEO

DATA: BW

tersen, chairman and CEO, who resisted his efforts.

The scandalous sale of Getty Oil to Texaco more than doubled the value of the Gettys' trust, to $4 billion. Gordon was sole trustee at that point, mainly because his brothers were unable to do the job for various reasons. But not everyone was happy with him at the helm. In 1985, a group of family members successfully sued to break up the trust and remove Gordon. Each branch of the family now has its own trust.

WALNUT FARM. The Getty family would make almost anyone else's life look simple. But Ann's childhood was especially so. Born Ann Gilbert, the daughter of walnut farmers, she grew up in Wheatland, a farming town near Sacramento. When her father died in 1961, she moved to San Francisco and landed a job selling cosmetics at Joseph Magnin Co. She and Gordon, who met in a local tavern, were married in Las Vegas three years later.

It wasn't long before Ann became a fixture on the social circuit, where she made some key business connections. She became a director of Revlon Inc. and MGM/UA Communications Co., among other companies. She also hooked up with H. J. Heinz Co. CEO Anthony J. F. O'Reilly to take a small stake in Fitzwilton PLC, O'Reilly's Dublin-based investment vehicle. It currently owns 29.9% of ailing glass and china maker Waterford Wedgwood PLC. In the wake of the troubles at Grove, though, she has cut back on both her business activities and her partying. Instead, Ann, who never finished college, enrolled last year at the University of California at Berkeley, where she's studying biology.

By contrast, Gordon has never been a social animal. He seldom appears at parties. He spends much of his time each day at his in-home recording studio. One of the operas he wrote there, *Plump Jack*, has been performed several times. The reviews were mixed, to put it nicely. The *Los Angeles Times*, describing a Los Angeles Chamber Orchestra performance in 1988, said *Plump Jack* "resembles nothing so much as a vanilla cookie: innocuous and undistinctive."

He has fared much better as an investor. His group pocketed nearly $60 million from its run on Emhart, and the London team made around $10 million by frightening Aquascutum. Gilbert de Botton, chairman of London-based Global Asset Management Ltd., participated in the Aquascutum deal and is upbeat about doing more business with Getty. Gordon enjoys unseating "inefficient management," de Botton says. His hefty resources should give him many chances to pursue that pastime.

By Peter Finch in New York, with Richard A. Melcher in London and Robert D. Hof in San Francisco

AGONY AND ECSTASY IN THE ART MARKET

Sky-high prices mean more partnerships and less independence

It is a fact of life that the death of an art collector always sets off a bidding war among art dealers and auction houses, who vie for the right to sell the deceased's treasures. So it was when Lydia Winston Malbin died last October. Malbin had amassed one of the most impressive private collections of 20th century art in the U. S., an assemblage chockablock with important Italian futurist works by Brancusi, Severini, and Balla, plus paintings by Braque, Picasso, and Miró.

But only two contenders—auctioneers Sotheby's and Christie's—really had a chance. "We had discussions with several dealers," says attorney Ralph Lerner, who represented the estate's executors. But the gap between what dealers and the deep-pocketed auctioneers offered was so vast that "there wasn't much to decide. It was clear that we'd sell it at auction," says Lerner. Sotheby's won the prize, and the collection was sold for $86.5 million in May.

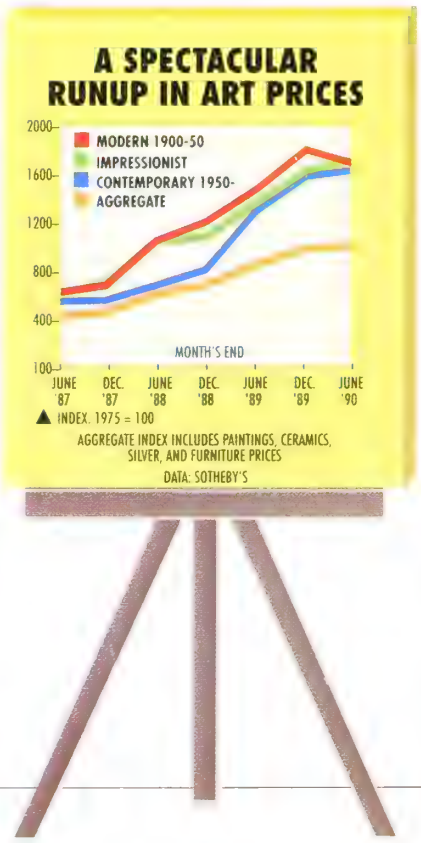
The Malbin case is no isolated incident. With art prices scaling undreamed-of heights—van Gogh's *Portrait of Dr. Gachet* recently garnered $82.5 million—art dealers should be in seventh heaven. But they're finding that there is agony as well as ecstasy in ever-escalating prices. It's increasingly tough for galleries—usually small and thinly capitalized businesses—to compete for inventory with Sotheby's and Christie's, which are public corporations with access to the capital markets.

The problem is crucial because supply, not demand, drives the art business: Collectors go wherever the art is. Says Richard L. gen, a dealer in Old Master paintin "If art prices continue to explode, if a tion houses have succeeded in turn art into a financial instrument—and t have—I have to find a way to deal that world, or I have to go fishing."

Instead of succumbing to the joys angling, dealers in the secondary m ket—who purchase works from co tors or estates rather than from liv artists—are changing their ways. T are reaching out to investors for c infusions or to banks for bigger lo They are banding together in part ships and taking more works on cons ment. Some are featuring more cont porary—and less pricey—works.

FEWER AND FEWER. Long-term, one pert believes some smaller dealers m drop out of the game completely. At least, others predict, big-ticket work art will be handled by fewer and fe dealers—the richest and best-capitali "The stronger dealers are getting st ger," says Bart J. Thompson, a v president at Ch Manhattan Ba which funds m New York dealer

So far, galle have suffered n in the competit for major collecti But since the sal *Dr. Gachet*, m art experts are f casting that $ million paintings just around the ner. If so, many gle paintings simply be out of reach of deal "No dealer can w a check for $100 lion," complains Worse, even o nary paintings becoming very pensive: Since 1 Sotheby's and Ch tie's alone have 1,091 works of



e than $1 million
To have an in-
worth $20 mil-
$30 million,
is expensive to
well, it isn't a
nventory any-
notes Warren
, who recently
ew York's Coe
Gallery to start
shop.
inventory prob-
s been building
the mid-1980s,
rt prices began
steep climb
For a while,
dealers ignored
y three years
eigen—probably
t outspoken crit-
e auctioneers' fi-
firepower—said
no trouble fi-
his operations.
ot more money
e than paintings
he stated then.
events this
changed the pic-
late April, deal-
liam R. Acqua-
ade a pact with
's to acquire the
Matisse Gallery
2.8 million. The
e inventory—
2,300 works—
to a dealer's
hs: It contained
works of many
which must be

FEIGEN AND DI COSIMO'S *MADONNA AND CHILD WITH ST. JOHN:* "AUCTION HOUSES HAVE SUCCEEDED IN TURNING ART INTO A FINANCIAL INSTRUMENT"

ut slowly, rather than put on the
block, to avoid flooding the mar-
t Acquavella, one of the world's
dealers, needed Sotheby's finan-
scle to fund the purchase. Then,
, Christie's sold *Dr. Gachet* and
's auctioned Renoir's *Au Moulin*
alette for $78.1 million.

ES. Since then, some gallery own-
e gone scurrying to their banks
ss bigger lines of credit. Fortu-
for them, as art has become big
s, more banks have shown inter-
ending to dealers. In New York,
mple, the traditional big art lend-
hase and Citibank—have been
y Chemical Bank, Manufacturers
r Trust, IBJ Schroder Bank, and
Feigen, whose recent purchases
Piero di Cosimo's *Madonna and*
ith St. John for $3.5 million, is
xploring new financial vehicles
vestment banks.

e banks aren't the answer, inves-
ay be—and the phenomenon has
eyond getting a few dollars from
dly collector. In recent months, for example, financier Asher B. Edelman has funded the startup of two antiquities dealers. Larry Gagosian, a big New York contemporary art dealer, is rumored to be backed by media magnate S. I. Newhouse. And Shearson Lehman Hutton has an investment in Berry-Hill Galleries—though a spokesman says Shearson will "wind it down as soon as practicable." Blame internal politics: The Berry-Hill connection was established by ousted Shearson CEO Peter A. Cohen.

Even dealers who have shunned outside investors now talk about enlisting financial partners on occasion. "We'd never give up a stake in the company," says Abbot W. Vose, president of Boston's Vose Galleries, which calls itself the oldest family-owned gallery in the U. S. "But we might go in with a financial partner to buy art as inventory because of prices [today]. We've investigated the possibility."

'No dealer can write a check for $100 million,' complains one. But Sotheby's and Christie's can

'NETWORKS.' Partnerships between dealers are also increasingly popular. "Dealers more and more are forming little joint ventures" to buy paintings, says Lerner. Gagosian agrees: "There's more of a necessity of networks among dealers to purchase art works now."

That's how William Beadleston Inc. and Coe Kerr last year won a collection of Impressionist and Modern art assembled by the late retailer Arnold Askin. Together, the two galleries arranged $25 million in financing to buy it. And partnering is how Gagosian recently captured former investment adviser Richard Weisman's contemporary art collection. Joining with Thomas Ammann, a big Swiss dealer, he paid more than $40 million for Weisman's collection. Gagosian also pre-sold some paintings.

Partnerships, like consignment deals—another potential stratagem of financially strapped dealers—have their drawbacks. Notes Gagosian: "I'd rather buy things myself—there's more risk, but more gain." Feigen, for example, wants $8.5 million for the di Cosimo.

That's why some dealers may diversify a bit. William Beadleston, for one, has always focused on Impressionist and Modern works. Now, he's adding more contemporary items to his inventory—for example, a work by Morris Louis, whose style of color-field paintings was popular in the '50s and '60s. "I have zero desire to sell mediocre works at high prices, so one has to keep evolving one's interests," says Beadleston. "It's a matter of staying in the business."

Beadleston's words are apt even if the market has cooled, as many suspect. For better or for worse, the high prices on major art works can't be painted over. The dealers that survive will be those that adapt to them.

By Judith H. Dobrzynski in New York

Commentary/by Peter Finch

RACISM: GOLF'S INTOLERABLE HANDICAP

When advertisers signed up for this month's PGA Championship, they hoped to be part of an event that folks would remember for a good long while. Well, in one sense, they're getting their wish. Although the first golfer doesn't tee off until Aug. 9, this tournament has already been assured a place in sports history. The reason is golf's ugly little secret: racism.

Home for this year's PGA Championship is the Shoal Creek country club near Birmingham, Ala. It's a beautiful, Jack Nicklaus-designed layout, and in just 13 years it has become one of the most highly regarded courses in the U. S. But apart from caddies and a few other employees, you won't find many black people on the premises. And that is exactly how Shoal Creek's members like it, judging from the recent comments of founder Hall W. Thompson.

Thompson later apologized for his remarks and, predictably, insisted he was quoted "out of context" by a local newspaper. Then his club moved to calm the fire on July 31 by accepting its first black member, Birmingham businessman Louis J. Willie. So maybe there won't be any pickets at the PGA Championship. Maybe some sponsors that threatened to pull out will run ads during the event after all. But the fact is, Hall Thompson has landed golf in the deep rough.

The Shoal Creek controversy unfolded slowly over a few weeks this summer. But what really got things rolling was money. Several advertisers, led by IBM and Toyota, decided to yank their ads from the PGA Championship telecasts on ESPN and ABC. They didn't want their names connected to an event with racist undertones, and they should be applauded for moving quickly and decisively.

True, there's a measure of hypocrisy amid all the hubbub. "Exclusivity" has always been a veil for racism and sexism at country clubs, particularly among the clubs that host major tournaments. Golf officials know it. Advertisers know it. Just six years ago, the PGA Championship was played at Shoal Creek without incident. It was won by Toyota pitchman Lee Trevino—who, as a Mexican-American, might not get the red-carpet treatment if he tried to join.

A WORKER AT SHOAL CREEK, WHICH ADMITTED ITS FIRST BLACK MEMBER ON JULY 31

But this is no time to look back and point fingers. Corporate America has a unique opportunity to make a difference. Any advertiser with a commitment to equality should refuse to sponsor events at clubs with racist membership policies. Private clubs certainly have the right to choose their own members. But if they continue to consider race and/or gender in making their selections, they surely don't deserve the money and attention afforded by a professional golf tournament.

> 'Exclusivity' has always been a veil for racism at country clubs. Golf officials know it. Advertisers know it

Shoal Creek's acceptance of one no white member, under obvious pressu isn't good enough. Advertisers oug to continue witholding their money u til they can be sure that Shoal Creek offering more than cynical tokenism

PROMISES, PROMISES. If busine doubts that it could have much effe on a problem so deeply embedded American society, it should consid this: Since advertisers started pulli out of the PGA Championship, the m jor U. S. golf orga zations have be shaking in the spikes. Until this su mer, they were p marily concerned wi course quality wh choosing sites. No the PGA of Ameri sponsor of the Sho Creek tournamen promises to consid membership policie So do the fabulous wealthy PGA Tou which has the most lose, and the U. Golf Assn. (A spoke woman says the L dies Professional G Assn. has alwa been sensitive to se ism and racism a doesn't plan to chan its policies.)

Admirable as they sound, it may tough to enforce these pledges. Sor clubs will try to pass themselves off nonracist by explaining that "no blac have ever applied" for membership. the organizing bodies themselves m simply decide that a club is "willing change" and deserves to host a tourn ment. This was the PGA of America inexcusable position on Shoal Cre following Thompson's apology.

It doesn't take a supersleuth to t the difference between a club that ha pens to be all-white and one where r norities are unwelcome. The respon bility to separate membership fa from fiction now belongs to golf's ganizing bodies. But business has important role to play, too. By pulli tightly on its purse strings, Corpora America can make sure tournament ganizers live up to their word.

Your Business Week With Acer

Every working day Acer and Business Week benefit business organizations throughout the world. Both companies understand the importance of quality in today's global markets. Helping businesses enhance their productivity is what each company is all about.

One example of Acer's commitment to quality can be found in Volkswagen's Wolfsburg plant in West Germany. The plant utilizes 200 Acer 286-based personal computers as workstations in its Incoming Components Inspection System. Linked to various measuring instruments, the workstations process quality control information and store the results in a centralized database.

Achieving excellence around the world, Acer and Business Week are a powerful pair for your business information needs.

Acer®
Global Partner in Computing

Regional Offices: ■U.S.A., San Jose, Tel: (408)922-0333 ■U.K., London, Tel: (081)569-2978 ■W.G., Dusseldorf, Tel: (0211)6508-0 ■France, Nimes, Tel: (01)64805239 ■The Netherlands, Eindhoven, Tel: (040)551-881 ■Japan, Tokyo, Tel: (03)463-3222 ■Australia, Sydney, Tel: (02)899-6644 ■Malaysia, Kuala Lumpur, Tel: (03)261-8866 ■R.O.C., Taoyuan, Tel: (03)489-3188.

CAN DEC BEAT THE BIG BLUE BLUES?

After its first-ever loss, the company plans a radical reorganization

Three years ago, Digital Equipment Corp. was the talk of the computer industry. It was growing at more than 20% a year selling flexible networks of VAX minicomputers to large customers frustrated by a slow-moving IBM. While Big Blue was mired in an earnings slump, DEC emerged as a formidable No. 2 in computers, piling up sales and earnings records. Just before the October, 1987 crash, its stock hit 199, triple 1986's low. The ad slogan "Digital has it now" was no overstatement.

Today, though, the question is: Where did it all go? Starting in 1988, as demand for minicomputers began to sag, DEC's earnings began dropping. Last year, the company began making what many investors say were only halfhearted attempts to rein in costs. At the company's Maynard (Mass.) headquarters, executives said it was just a routine low point in the product cycle and predicted that the new VAX 9000, a $1 million-plus mainframe, would soon cure DEC's doldrums—as new hardware had always done in the past. In fiscal 1990, ended June 30, the company announced plans to shed 2,300 of its 125,800 workers, but the head count actually rose.

EYE-OPENER. Finally, on July 25, executives got a bucket of cold water in the face: DEC's first-ever loss as a public company. With revenue growth flat at $12.9 billion for the year and operating earnings down 58%, to $563 million, the company took a $550 million restructuring charge, including funds to induce 9,000 workers to quit voluntarily.

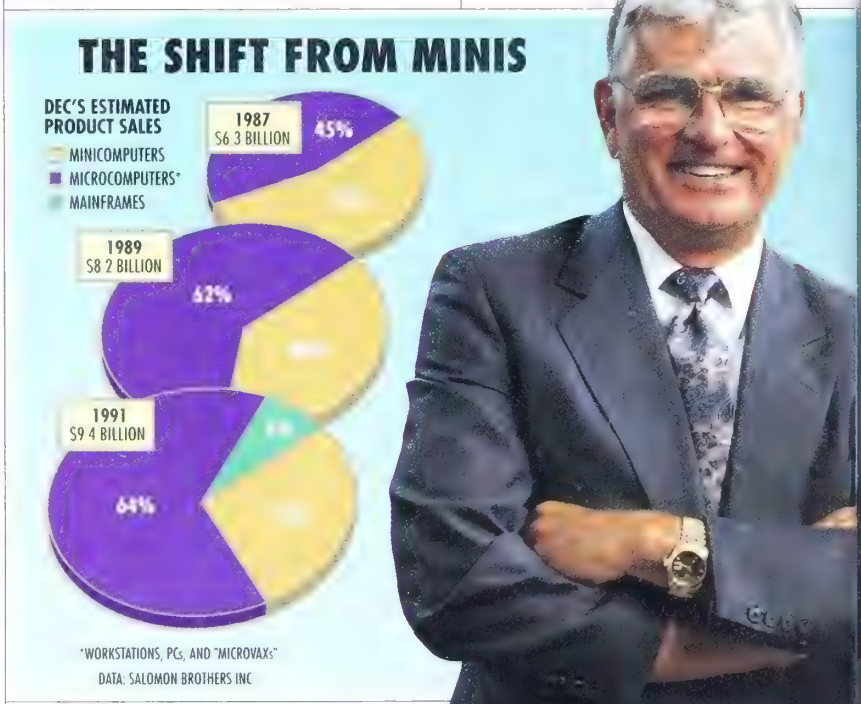
That still leaves the company about where IBM was in the late 1980s—overstaffed, underproductive, and inordinately dependent on slow-growing, proprietary product lines. As IBM executives can attest, recognizing those problems is just the start. Solving them takes years. IBM has only this year convinced Wall Street that it can match the earnings record it set in 1985.

Some analysts continue to hold out for a quick rebound at DEC—Barry F. Willman at Sanford C. Bernstein & Co. predicts a 9% revenue gain, to $14.1 billion, and earnings of $742 million in 1991. But the stock, at 75, has lost some luster. "It's going to take a long time for DEC to get its house in order," says an analyst at an institutional investor that recently cut its holdings. Analysts who greeted the VAX 9000 as a possible quick fix for DEC's earnings now are cutting projections of first-year sales by as much as one-third, to less than $1 billion.

DEC's redoubtable president, founder Kenneth H. Olsen, quietly began his turnaround plan with the July 1 start of the new fiscal year. He ordered a sweeping reorganization that's affecting management structure, marketing direction, and product mix. IBM has cut its payroll by 5% since 1986; now, DEC wants to shed 7% of its employees by early 1991, for a total of 118,000 worldwide. IBM is paying more attention to "open systems," based on industry standards, and so is DEC. IBM is selling low-priced workstations based on speedy reduced instruction-set computing (RISC) microchips, and so is DEC.

Of all Olsen's moves, the management reorganization is the most dramatic. Echoing an IBM shake-up in 1988 that created more autonom product divisions, the DEC move is a at getting models out faster and tu them more closely to customer ne Decision-making is being pushed o into the divisions—and out of h quarters.

DEC is actually going further than Where Big Blue created five semi- pendent groups, DEC plans 18 sepa organizations, each responsible for keting to a specific industry. Each



00 million to $1 billion operation
ofit and loss responsibility and
to set quotas and budgets.
owerful engineering and manu-
g departments, though still inde-
will take their cues from the
rketing units. "This is what the
needs to get going again,"
n F. Smith, senior vice-president
ations to whom Olsen has given
of creating a more respon-

R AND FASTER. Smith, a 55-year-
larine, won Olsen's favor while
e of engineering and manufac-
n the mid-1980s. He kept the
tage VAX design highly competi-
reducing it to a few microproces-
s, which slashed size and cost.
C pumps out more than 100,000
ach year, ranging from desktop
to mainframes, and it takes two
develop a new model, not five.
e way, Smith built a reputation
g through DEC's confusing man-
system. Rather than building a
s among various managers—
al DEC way—Smith made deci-
mself and got subordinates to implement them. In a recent memo to senior managers, Olsen cited Smith's ability to "make the important decision."

To ride herd over the 18 business units, Olsen has turned to another Smith, Peter J.—no relation to John. As DEC's marketing vice-president, Peter Smith will try to get the company clicking simultaneously in markets ranging from health care to manufacturing. He's known for having established the company's 40 demonstration centers, where DEC salespeople show customers systems tailored to particular industries. The centers have lured new software developers, further aiding the VAX effort. "In areas like banking and insurance," says a former DEC executive, "Digital never made any progress at all until Pete went after the software companies."

DEC's big problem: PCs and workstations are taking on most of VAX's traditional jobs

If nothing else, the Smiths are determined to make DEC move faster. Previously, its U. S. sales force and two domestic marketing divisions operated independently, often leading to tussles and delays. "This place became like the government—very process-oriented," says a marketing executive.

Still, no amount of reorganizing can overcome DEC's big problem—the decline in demand for minicomputers and the shift to cheaper hardware. Networks of desktop computers are rapidly taking on the mini's traditional office automation and engineering chores—more flexibly and for less money. "People aren't going from a mainframe to a mini anymore," says Richard G. Grady, Liberty Mutual Insurance Co.'s vice-president of information systems. They buy PC networks that often rely not on a mini but on beefed-up PCs called "servers"—which DEC doesn't yet sell.

The result: According to market researcher International Data Corp., worldwide mini sales this year will grow by only 3%, down from 12% in 1986. DEC, which now sells personal computers built by Tandy Corp., is still a tiny player in the faster-growing PC market. And its success in engineering workstations—where VAXstation sales make DEC a close second to Sun Microsystems Inc.—does little for the bottom line. Cutthroat competition keeps workstation margins razor-thin—far from what DEC needs to support its 30,000-person sales force. DEC's selling and administrative costs last year were 31% of revenues, compared with 24% for Sun.

IN SYNC. The sales force is no luxury, however. DEC needs feet on the street to continue selling VAXes—including the new mainframe and a "fail-safe" version designed for critical jobs. The sales team will also be needed to push the company into fast-growing markets, increasingly with non-VAX computers. In addition to the PCs and a line of RISC workstations that run a version of AT&T's Unix software, DEC is expected to jump into the PC network-server market this fall with a machine based on Intel Corp.'s 80486 microchip.

Still, VAX remains DEC's profitable bread and butter. So the company is positioning it as the way to connect all a customer's workstations and PCs. New DEC software called Network Application Support (NAS) enables Apple Macintoshes, IBM-compatible PCs, and Unix-based workstations to share data and tap into a menu of VAX "services" such as databases and electronic mail. Makers of PC software, such as Lotus, Ashton-Tate, and WordPerfect, are adapting programs for NAS.

But no matter how fast DEC gets into new markets, they will account for no more than 20% of its product sales over the next two years. Meanwhile, DEC's proprietary machines are bound to feel increasing pressure from low-priced, industry-standard hardware. It looks like a case of the Big Blue blues.

By Gary McWilliams in Maynard, Mass.

ohn and Peter Smith:
Shaking up DEC's
debound management

DEC'S STOCK SLIDE

DATA: BRIDGE INFORMATION SYSTEMS INC.

PRODUCT DEVELOPMENT

STEP BY STEP WITH NIKE

A peek at the R&D behind its latest entry in the running-shoe race

Last February, 186 athletes from Alaska to the Virgin Islands laced up new running shoes and hit the road. They had specific instructions: cover at least 45 miles a week, don't worry about stepping on rocks and glass, then report on how well the shoes held up to Nike Inc., in Beaverton, Ore.

These runners, all volunteers, are a key part of Nike's product-development process. They were testing its newest model, the Air 180, which in late July made its public debut at the National Sporting Goods Assn. show in Chicago. Due in stores in January, it marks what Nike calls the next evolution of its air-cushioning technology. The bottom of the heel holds a large urethane window, bonded to the shoe by a new compound Nike developed, that affords a 180-degree view of a greatly expanded air bag. Nike says the 180 has the most cushioning of any of its running shoes—and that retailers love it. "We're already overbooked," says Nike founder Philip H. Knight.

TINY SLICE. The saga of the Air 180 illustrates the curious blend of high and low technology that goes into top-selling athletic shoes. While companies dole out tens of millions on ad campaigns with spokesmen such as Michael Jordan and Bo Jackson, spending on research and development is surprisingly low. Industry leader Nike, with profits of $243 million on $2.2 billion in sales in fiscal 1990, spent less than $8 million on R&D—less than 0.5% of sales.

But this isn't the auto business, where developing products can cost billions. Analysts say that despite its slim budget, Nike spends more on R&D than any competitor except Japan's ASICS Corp. It has paid off. Joseph Hamill, director of the Biomechanics Lab at the University of Massachusetts at Amherst and a consultant to several shoemakers, says Nike's lab is "far and away the best" in the business.

The cornerstone of this effort are 10 advanced-products engineers, known as APEs. Clad in T-shirts and shorts, they work behind a cage-like door guarded by a stuffed gorilla. The "King of the APEs," as leader Bruce J. Kilgore is called, is charged with creating shoes for at least five years down the road. His group devised the multisport "cross-trainer" shoe and conceived what became the "aqua sock" that's now widely used by swimmers. Kilgore's team also designed Batman's boots and the self-tying sneakers that Michael J. Fox wore in the movie *Back to the Future*.

Just down the hall from the APEs' "rubber lab," where compounds and molds are tested. Nearby, a model s makes molds for soles, and a small-s shoe factory turns out samples. A ph cal testing lab evaluates shoe ten and adhesion. And its Sports Rese Lab does biomechanical and anaton checks using the latest traction-tes devices and high-speed video camera

BACK IN FRONT. Nike has learned hard way to push its technology. 1979, the company introduced the cushioning system. But in the mid-19 it focused too much on fashion and overtaken by Reebok International as the industry leader. In 1987, N fought back, marrying marketing to letic performance with the Visible line—shoes with a tiny window in heel so consumers see the air bag. T spurred sales of all products. And in past 18 months, N has surpassed Ree in both market sh (25% vs. 23%) and sa The company says ders for the first months of its fiscal y ending next May 31 running 42% higher dollar value than a y ago. And its stock jumped 72% since Ja ary (chart).

Now, Nike's en neers, not its fash designers, call shots. Kilgore got idea for what beca the Air 180 in e 1988, after the succ of Visible Air. He w ed a shoe whose en heel was an air bag ble through uretha But it proved too h to mass-produce, so set an interim goal: large the air bag 50% and make it vis with a bigger window.

A rough prototype was quic worked up. Then the shoe fact churned out several pairs, using a sole made of rubber, urethane, and The Sports Research Lab checked sta ity and cushioning, and designers sou the right look.

For the APEs, the biggest hurdle la readying the shoes for mass product The Air 180 prototype's heel and toe made of natural rubber, while the "w dow" is synthetic. It was hard to b

gore and the rubber-lab chem-
months studying different com-
efore developing a new ure-
t melds the two—visible in a
k strip on the 180. Then it was
of working with factories to
ooling that provided an even
etween the two parts. It wasn't
February that the problem was

when Nike sent the Air 180 to
rmy. Runners are chosen in di-
ations so shoes can be evaluat-
limes. For 90 days, testers log
es and terrain traversed—re-
very two weeks on cushioning,
, perception of weight, and du-
hen they return the shoes so
examine wear and tear. The
l being tested. But so far, run-
nments have resulted in only
difications to ensure that the
s up past 500 miles—enough to
amateur runners a while. Nike
a big market for the 180.

ED CLAIMS. It could be wrong,
Last year, in response to Ree-
Pump, a basketball shoe with
on device for snugger fit, Nike
its own pump product. The
claims its version is better.

But instead of providing a built-in pump, as Reebok did, Nike offered a separate device. While this kept Nike's shoe lighter, consumers still preferred Reebok's version—by 20 to 1. "We blew it," concedes Kilgore. Belatedly, Nike's built-in pump will the stores this fall.

ll Street, some question claims echnology in the marketing-ori-letic-shoe business. "Nike'll Air you're all Aired out," says Kid-oody & Co.'s Gary Jacobson. stion is, are they engineering a ore technological sneaker or a rketable sneaker?" Adds one foot expert: "It's a good prod-not miles better than what oth-oing."

me people do think such refine-ake a difference, as reflected in arket leadership and customer They've got more of a serious-omponent in their sales," says Brothers Inc. analyst Heidi , who credits superior technol-e hopes that will give it the to stay ahead of Reebok—and its pace in hard times.

i Jones Yang in Beaverton, Ore., rt Buderi in New York

Business Gifts That Are Remembered, Forever.

Tiffany's Corporate Division offers an extraordinary selection of gifts to accommodate every holiday budget.

Your personal Tiffany Account Executive will see that no detail is overlooked and all orders are promptly fulfilled.

Tiffany also offers you extensive experience in sales incentive programs, recognition award programs and custom design projects.

To order a Corporate catalogue, open an account or place an order, call The Corporate Division at 1-800-423-2394.

TIFFANY & CO.

NEW YORK SAN FRANCISCO WASHINGTON, D.C.
BEVERLY HILLS SOUTH COAST PLAZA CHICAGO ATLANTA
DALLAS HOUSTON PHILADELPHIA DETROIT BOSTON

A VERMONT CONFERENCE CENTER THAT TURNS BUSINESS INTO PURE PLEASURE

One of Vermont's finest mountain resorts is in Stowe, just 35 minutes from Burlington International Airport. At Topnotch, a distinguished resort, spa and conference center on 120 country acres, our fully equipped facility accommodates from 10 to 250 with every state-of-the-art convenience. For pure pleasure, indoor and outdoor tennis, a full-service spa, indoor and outdoor pools, golf, miles of hiking, biking and riding trails and the East's finest skiing are all at your doorstep. Our professional staff custom tailors every conference detail to your style. And guarantees the personal care your successful meeting demands.

Call us at **800-451-8686** *(Eastern US)* **800-677-8686** *(VT)* or **802/253-8585**.

TOPNOTCH
AT STOWE
RESORT AND SPA

Mt. Road, Stowe, VT 05672
A 4-star, 4-diamond resort

Introducing the laser printer to buy if price is the first thing you look at,

or the last.

	The New IBM LaserPrinter E	HP LaserJet IIP
Speed	✓ up to 5 ppm	up to 4 ppm
Speed upgrade option	✓ up to 10 ppm	No
Adobe PostScript option	Yes	Yes
Printer emulation	✓ IBM, HP PCL	HP PCL
Std. plotter emulation	✓ Yes	No
Font card slots	✓ 2	1
Std. input paper tray capacity	✓ 200	50
Std. output paper tray capacity	✓ 100	50
Opt. sec. input paper tray capacity	✓ 500	250
Opt. envelope tray capacity	✓ 75	20
List price*	✓ $1495	$1495

*Dealer prices will vary

Any way you look at it, the new IBM LaserPrinter E gives you more for your money than any other laser printer in its price range.

For the same price as the HP LaserJet IIP, the IBM LaserPrinter E gives you all the advantages of laser quality output 25% faster, with four times the paper capacity, and twice the number of font slots.

Plus the IBM LaserPrinter E is unique in its price range because it lets you customize your printer's speed and features to meet your exact needs. And that makes it the only affordable laser printer that lets you buy now and grow later.

For example, if you decide you want faster printing, you can double the LaserPrinter E's speed. Or if your software requires Adobe PostScript™ language, it can give you that creative flexibility, to

So whether you first requirement is price, performance flexibility, the new IBM LaserPrinter E should be at the top of your shopping list. See it today by calling 1 800 IBM-2468, ext. 982, for the name of your nearest IBM Authorized Dealer.

The new IBM LaserPrinter E. Suddenly, nothing else measures up

IBM

IBM is a registered trademark of International Business Machines Corporation. HP LaserJet IIP is a product of Hewlett Packard Corporation. Adobe PostScript is a registered trademark of Adobe Systems Inc. ©1990 IBM Corp.

LZHEIMER'S RE THAN ONE DISEASE?

nt genes may determine when it strikes

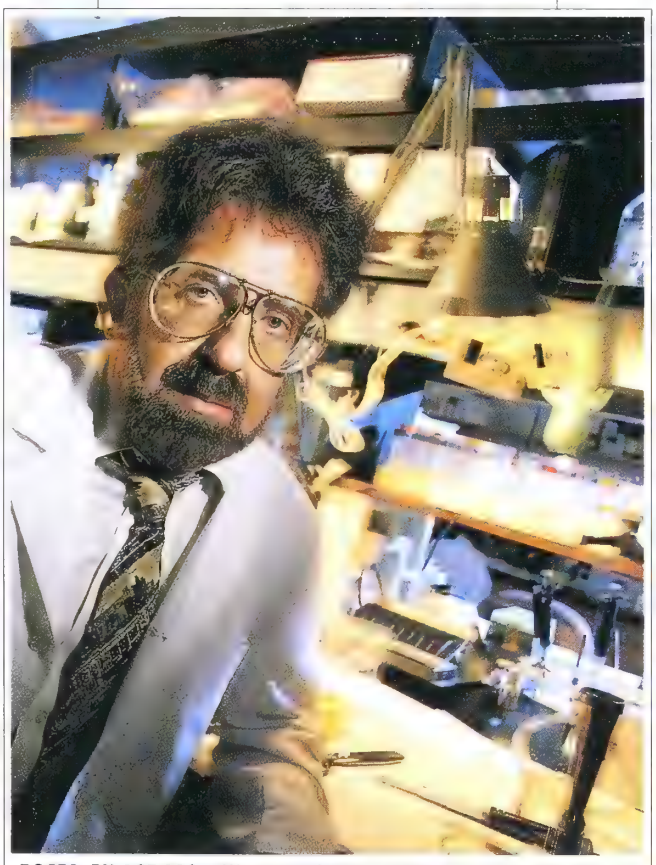
nearly a decade, Dr. Allen D. es, professor of neurology at e University, has been studyies to learn if Alzheimer's disenetic. In some cases, it certainmong the subjects Roses has a family of nine siblings, three died from Alzheimer's in their one of whom still suffers from father died early from the dis- the family has a long history of dementia, ive of the children reaffected. But for the jority of Roses' pand most of the 4 milmericans with Alz—the disease doesn't ntil after 65. And for ople, it's hard to tell if play a role: They often only family member disease.

GENE. Now Roses, and r teams of scientists, most common form of r's is genetic, too. But esearch, which he dt a conference in late dicates the problem on a different chromoan the gene implicated Alzheimer's. If he's ere are at least two va- the illness, a discovcould redirect the re- 'Alzheimer's is much omplicated than we ' says Roses. "It may be several diseases."

now, researchers have ed Alzheimer's a single And why not? The ef- the same no matter occurs—the illness slowly de- e brain of its victims, eventualg to death. The damage that ists see in brain tissue is also That has led researchers to e from what they've learned in the 10 to 20 families worldwide e disease strikes at an early age early genetic.

enetic link for so-called familial r's disease (FAD) was first pro- Rudolph E. Tanzi, a neurogenetics researcher at Massachusetts General Hospital in Boston. In 1987, Tanzi predicted that a gene for Alzheimer's would be found on chromosome 21 of the body's 23 pairs. His work was later confirmed in Belgium by researcher Christine von Broekhoven, and Tanzi is still searching for the errant gene.

But Roses wasn't convinced that chromosome 21 had a role in the vastly more common late-onset Alzheimer's. It is hard to find families with several generations affected by the disease—many relatives die before they are old enough to get it. So Roses looked instead for families with a large number of siblings where one or two got the disease late in life. He found 32 of these families, and after using so-called genetic linkage techniques that help determine the approximate location of a gene, he declared that the culprit for late-onset Alzheimer's was on chromosome 19. Roses also surprised the research world with the novel idea that, given enough time, everyone might get Alzheimer's. "It may not fit the model of a genetic disease, but instead may be a genetic trait that expresses itself as a disease," says Roses. "It involves a gene that we all have, that in some people goes awry earlier than it does in others."



ROSES: BY AGE 120, "WE ALL WOULD PROBABLY HAVE THE TRAIT"

In fact, Roses believes that the gene for Alzheimer's is some sort of "housekeeping gene that is supposed to keep cells tidy and operational but burns out with age." He backs up this theory by noting that by age 90, one in three people have the disease. By 120, he adds, "we all would probably have the trait."

Not everyone agrees. Jay W. Pettegrew, associate professor of neurology at the University of Pittsburgh, disputes the contention that all Alzheimer's has a genetic basis. "The majority of patients have no history of the disease," he says. Many researchers agree with Tanzi's assessment: "We may be looking at a spectrum of disorders, some due to genetic and some to environmental factors such as toxins."

Still, Roses' research seems to confirm what many other scientists suspect—that more than one gene may be at work in Alzheimer's. "People in the field aren't surprised that there could be more places than one where a mutation occurs that causes the disease," says Huntington Potter, an associate professor of neurobiology at Harvard Medical School. "It's a very complex disorder."

For now, drug companies are mainly watching from the sidelines. Most of their research is aimed at controlling the disease with drugs that limit the death of brain cells. The current debate won't immediately affect such treatments. But in the long run, finding the gene that is key for Alzheimer's could open the door to new drugs. David A. Drachman, chairman of neurology at the University of Massachusetts Medical School in Worcester, says that once researchers identify a gene, they can decipher the biochemical roots of Alzheimer's—and devise a drug therapy or some other fix. Adds Roses: "The most important thing is [to show] that this is a genetic disease. Then we can apply all the beautiful tools of molecular biology to tackling it."

By Naomi Freundlich in New York, with Gary McWilliams in Boston

Developments to Watch

EDITED BY ROBERT BUDERI

THESE MUMS ZAP INSECTS—AND DISEASE

Chrysanthemums, dyed shades of blue, pink, or red, have been banished mainly to buttonholes. But one member of this bud family is proving more than decorative. Biologists at the State University of New York at Buffalo have found a mum that could help fight Chagas' disease, a lethal and incurable illness that afflicts about 20 million people—mainly in Central and South American shantytowns.

Chagas' disease is spread by bloodsucking insects such as mosquitoes. But chrysanthemums produce chemicals called pyrethrins that kill these insects. Ian Baldwin, assistant professor of biology at SUNY-Buffalo, says his lab is learning how to clone these natural insecticides, which don't leave harmful residues after they kill an insect. The next step is to coax chrysanthemums to produce more pyrethrins. Then, people living in affected areas could grow them in their gardens and safely control the dangerous insects at a very low cost.

A NEW GENE THERAPY HOLDS PROMISE FOR CANCER PATIENTS

Treating disease by inserting new genes into patients has long been a goal of modern molecular medicine. But waiting for gene therapy has been like waiting for Godot, because the science has moved more slowly than expected. On July 30, however, researchers jumped a major hurdle. A key government committee for the first time gave the green light to two proposed gene-therapy experiments on humans.

One will bolster a cancer therapy already developed by Steven Rosenberg of the National Institutes of Health. Currently, Rosenberg extracts tumor-fighting cells from terminally ill cancer patients, boosts their potency by growing them in a special medium, and then re-inserts them in the patients. Now he, R. Michael Blaese, and W. French Anderson of NIH plan to add to the mix the gene for a powerful tumor-killing substance—making the treatment potentially much more effective. In the other experiment, Anderson and Blaese will treat so-called "bubble boy" disease by adding the gene for a key enzyme to blood cells. They hope the patients' faulty immune systems will be restored when the enzyme is produced by the cells. Both experiments still need Food & Drug Administration clearance, but approval is expected.

'SMART' LENSES THAT COULD REVOLUTIONIZE OPTICS

Inspired by theoretical physics, scientists at Isotec Limited Partners in Tucson have developed a way to make "educated" lenses that could revolutionize optical systems in everything from computers to solar cells to ordinary cameras.

They're smiling about Grin, or gradient refractive index, glass. Instead of grinding a slab of glass to produce a lens with a fixed focus, researchers create the new lenses by fusing many layers of glass powder. Each layer has a sl different refractive index (the measure of how much li beam is bent as it passes through a material), and the ay are arranged so that even light entering at severe an e "straightened out." This breakthrough came when resea turned to mathematical models to help them figure ou the atoms in a lens should be arranged.

Such lenses could be used in optical processing to digitized pulses of laser light sent by computer chips, r less of what direction the signals come from. These "s lenses could also concentrate sunlight on solar cells anc nate expensive sun-tracking systems. Grin glass coul lead to smaller, lighter zoom lenses for cameras. Isotec to license the new technology.

THIS POPCORN IS GOOD TO THE LAST KERNEL

If you don't like unpopped kernels at the bottom o microwaveable popcorn bag, chemists at the Southwe search Institute in San Antonio say they have an a Their patented method not only helps corn pop faste more completely but also could do away with costly pack

Chemists Chel W. Lew and Darren E. Barlow st coating corn kernels with a low-melting fat, such as tha in other microwaveable popcorn. The fat helps genera heat that causes the water inside the kernel to expan pair then dust the fat-coated kernel with an edible calciu powder. Then, they add an edible polymer, such as thos in jellies and ice cream. The salt reacts with the polyr form a solid outer shell, which holds in fat and moisture and helps the corn pop faster and more completely.

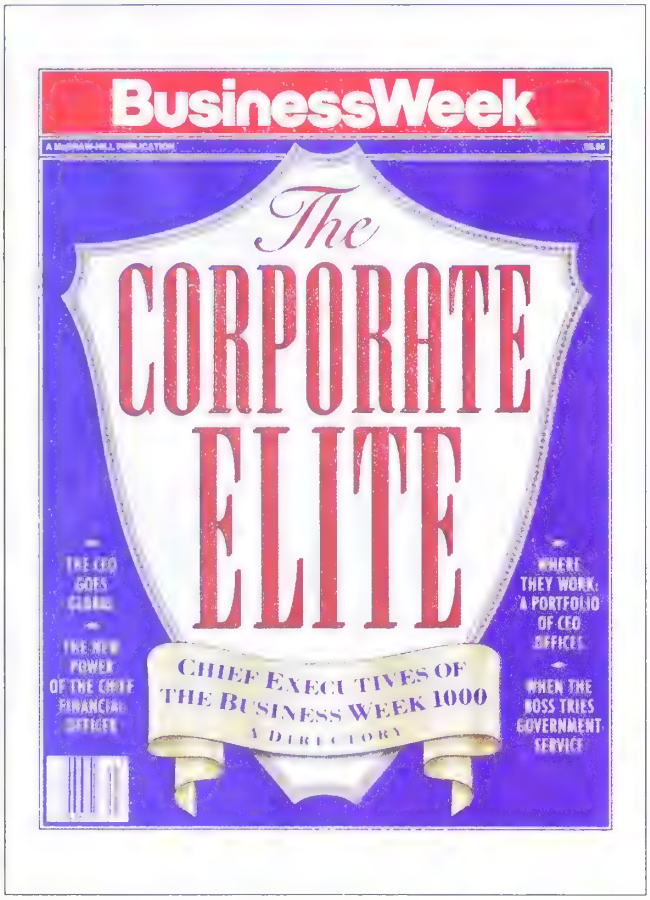
Lew says this process can lower costs, because corn popped in a paper bag instead of special packages now u attract heat and retain oils. The nonprofit institute is t with food manufacturers about licensing the technology

A NEW CHICKEN FEED THAT AROUSES ROOSTERS

At last, scientists have created a potent aphrodisiac. But it's only worth crowing about if you're a rooster or a poultry farmer. The research began innocently enough. Scientists at Ethyl Corp. in Richmond, Va., were looking for a feed additive to boost shell strength in eggs destined for market. They hit paydirt with a concoction made of the mineral zeolite. But when they the feed on breeder hens, researchers got a surprise. Sin hens were penned with roosters, both cock and hen at same grub. And roosters dining on zeolite became feat Don Juans. "Mating increased by more than 20%," re Sebastian M. Laurent, research adviser to Ethyl.

Laurent doesn't know why zeolite makes roosters s sionate. Experiments show, however, that the mi strengthens eggs by increasing the absorption of calcium chicken food. So Laurent is now feeding the substance to cows, and sheep to see if it leads to stronger bones and f growth. There's no word yet on whether snacking on z also puts these creatures in the mood for love.

each The Power At The Top



CEO is one of the most intriguing figures rporate America. Virtually everyone in usiness community is curious about these captains of industry. How much power do they l? What are their backgrounds? Their achievements? Their salaries? ■ On October 26, 6.6 million influential readers will turn to Business Week for the answers. It's *The orate Elite*, our annual directory of the chief executives who run America's 1000 most able companies. ■ This is an unbeatable chance for you to reach the people who matter — top business professionals who make purchasing decisions every day. They'll see your n an environment of unparalleled authority. And, because they often save the issue for e reference, they'll see your message again and again. ■ So reserve space today. For information contact your local Business Week Account Representative or call Chuck nessy at (215) 496-3834.

E DATE: October 26, 1990 CLOSING DATES: Four Color - September 10, 1990
Black & White - September 17, 1990

BusinessWeek

EDITED BY AMY DUNKIN

Collecting

SPORTS MEMORABILIA: A WAY TO FIELD SOME DREAMS

Throughout the 1980s, baseball card collectors had it made. With prices appreciating an average of 25% a year, according to a Marquette University study, baseball card portfolios often outperformed a host of more conventional investments, including stocks, Treasury bills, and diamonds.

Now, the excitement has spilled over into other arenas. Collectors are snatching up just about any object connected with popular sports, from players' jerseys and old scorecards to boxers' gloves and antique golf putters. Items can fetch close to six figures if they have the right names or historical events attached to them.

Baseball accounts for about 90% of the memorabilia market and boasts the highest prices and broadest array of relics. Fans of the old Brooklyn Dodgers, for example, have been paying $750 apiece for seats from the team's late, lamented Ebbets Field.

TOUGH CALLS. It's an investment field that has been rather primitive. While hard-core fans have long swapped valuable mementos privately, reliable price information has been scarce, and doubts about authenticity have been difficult to resolve.

That's beginning to change as major auction houses get into the market. Sotheby's started dealing in sports memorabilia last year, and Christie's, which once sold only a few items a year, has greatly stepped up its sports offerings. Notes Bethe Goldberg, a spokeswoman for Christie's: "We've been seeing very strong prices over the last year. Interest is really growing." In addition to the majors, smaller auction houses such as Guernsey's in New York and Richard Wolffers in San Francisco have started to deal in sports-related collectibles.

Prices vary wildly, even on similar items. In June, for example, Christie's offered baseballs that both Babe Ruth and Joe DiMaggio had signed. Although Christie's estimated selling prices of $1,200 to $1,800 for each, one sold for $2,800 and the other—in slightly better condition—went for $9,900.

The only rule on p seems to be that th zooming upward. Says Lemke, publisher of *S Collectors Digest*: "An can easily double in valu only one year. Christie's berg adds that the "intri created by high price tag helped draw many aff "young urban professio into the market.

So where does a lector begin? H publications such *Sports Collectors gest* (715 445-2214) *Beckett Baseball Monthly* (214 991-6 besides publishing guides for va sports cards, run cles about collec They also list se hundred collec shows that take each month and ads for mail-order cerns, dealers, phone-in auction ho All told, some 3,000 cialized stores de sports collectibles.

For golf enthusi Oliver's Auction Ga (207 985-3600) in K bunk, Me., has st yearly auctions of clubs, prints, and golfing paraphern since 1988. Collec may also want to auction houses and tique stores in Br where the bulk of trade in golf collect occurs, notes Ro Hansen, a nort New Jersey busi man who has an e sive collection of memorabilia.

Without lea home, a collector swap cards and memorabilia and pic

FROM BARRY HALPER'S COLLECTION: A LOU GEHRIG JERSEY AND A JOE JACKSON BAT

GREAT CATCHES AT RECENT AUCTIONS

Item	Price
Painting of Mickey Mantle used to create 1953 Topps card	$121,000
Lou Gehrig's 1939 Yankee home jersey	60,000
Wright & Ditson 1910 rake designed golfing iron	15,250
Jack Dempsey's 1919 heavyweight championship boxing belt	8,250
Baltimore Stars' 1985 USFL championship ring	5,280

DATA BW

information through
t, a computer data
perated by Informa-
tworks in Norwalk,
03 847-3367). The ba-
hly fee is $49, with
l charges based on
ach time a caller
n the system. Bob
formation Networks'
t, says prospective
rs must trade regu-
provide three refer-
om trading partners
ey may sign on.

ROOTS. Experts say
to limit the scope of
lection. Many fans
around a favorite
hers pick a specific
em: press pins issued
ers during World Se-
ries games, base-
balls autographed
by Hall of Famers,
or turn-of-the-cen-
tury golf irons.

Never buy any-
thing without at
least a 48-hour op-
tion to return it.
And if you have
any doubts about
the item's authen-
ticity, consult an
expert at a sports
fair or an auction
house. "There are
plenty of ripoff
artists out there," says Barry
Halper, an Edison (N. J.) busi-
nessman and part-owner of
the Yankees whose private
baseball-memento collection
includes 964 uniforms, more
than 500 bats, and a lock of
Babe Ruth's hair. "If you
don't have a lot of experience,
find someone who does."

HANSEN WITH SOME OF HIS ANTIQUE PUTTERS

Another caution: Memora-
bilia connected with current
baseball players may not be
worth much. A jersey that be-
longed to pitcher Nolan Ryan
will sell for at least $1,000.
But many ball players now
show up at collectors' fairs—
usually for a fee—to auto-
graph balls or bats, making
such items all too available.

But money isn't what moti-
vates most collectors. "Most
people are buying as fans,"
says Lemke of *Sports Collec-
tors Digest.* Still, if you pur-
chased a pair of Joe Louis' old
boxing shorts because you
loved him when you were a
kid, it's nice to know that they
have more than sentimental
value. *Andrea Rothman*

Retirement

ICO STILL MAKES THE MOST OUR PENSION DOLLARS

to retire in sunny
exico, where the golf
ason never ends, the
is always in fash-
the pension dollars
uxuriantly to cover
g from sirloins to
Yes, Mexico is still
nd you don't need a
arachute to land a
ce to live.

using isn't the buy-
ket it once was in
th American expatri-
nunities. In Cuerna-
r Mexico City, homes
t for $40,000 three
now sell for more
,000—cash—and any
tal will run $1,000 a
d up. In three years,
ve also doubled and
n San Miguel de
central Mexico and
Chapala near Guada-
Ajijic, a two-bed-
Mediterranean-style
recently sold for
it has a garage and
vith a Lake Chapala
no phone.

Mexico is more ex-
han it used to be, it's
asy place for Ameri-
ve. English is widely
and though purse-
, car theft, and bur-
glary are on the rise, drugs
and violent crime are less of a
concern than in the U. S.
Thanks to the tearing down
of trade barriers three years
ago, U. S. consumer products
from cereal to car parts are
available. Even the real estate
firm Century 21 now operates
south of the border.

CUERNAVACA DREAMIN': IN EXPATRIATE ENCLAVES, CABLE TV AND BRIDGE CLUBS

Housing aside, a retired
couple can live comfortably
on $1,500 a month. Cable tele-
vision, which costs about $20
a month, brings in the gamut
of U. S. programming. Some
major U. S. newspapers reach
many places the same day.
But with many expatriates
preferring to buy imported
food, a trip to the supermar-
ket can cost an average of
30% more than in the U. S.

Large expatriate communi-
ties in some towns make the
transition easy. Guadalajara
alone houses some 30,000 for-
eign retirees, mostly from the
U. S. and Canada. Bridge
clubs and lending libraries
abound. What's more, a bat-
talion of enterprising, bilin-
gual Mexicans caters to
American tastes in food and
fashion. Harder to find are bi-
lingual auto mechanics.

Lots of services are still
bargains. Standard pay for
maids and cooks is $5 a day.
Dentists will clean your teeth
for about $10. Touches of ele-
gance are also within easy
reach. At Cuernavaca's Las
Mañanitas, a garden restau-
rant where peacocks prome-
nade across the lawn, two can
dine well for about $50.

DRY SPELLS. Retirees willing
to venture beyond expatriate
enclaves can find bigger bar-
gains. In beautiful towns such
as Zacatecas and Oaxaca, it
costs less than $30,000 to buy
an attractive house of the sort
that could easily run $200,000
in a modest Los Angeles sub-
urb. But don't expect lending
libraries or cable TV.

One important tip
for house-hunters:
Take no services for
granted. Phones are
hard to get, for ex-
ample. If the sales
agent tells you the
phone company has
promised to install a
phone, ask the neigh-
bors how long they
waited.

Ask them, too,
about electricity, gar-
bage collection, and,
most important, wa-
ter. During the dry
season, even some of
the swankiest neigh-
borhoods receive a
mere trickle; make
sure your house has a big cis-
tern. And after you've moved
in, shake hands with the post-
man, and give him a $5 tip.
You'll get that pension check
faster. *Stephen Baker*

Health

PICKING SHADES THAT GET YOU OUT OF HARM'S RAYS

Whether you have bought sunglasses for a few bucks at a drugstore or for hundreds of dollars at an optical shop, the amount of protection they offer against the sun's ultraviolet rays has always been something of a mystery. Now there's a labeling system that tells you how much help they'll be. But unlike sunscreen makers, who indicate their products' degree of skin protection with numbers, the Sunglass Assn. uses words: cosmetic, general purpose, or special purpose.

The labels indicate that the lenses are coated to absorb different amounts of UV-B, a form of ultraviolet light that can burn the cornea and possibly cause cataracts. A "cosmetic" label means that the lens will absorb at least 70% of UV-B rays. That's fine for protection on a day described as cloudy-bright. In strong sunlight, you'll want "general purpose" glasses, which screen out 95% of UV-B rays. Lenses don't need to be dark to provide high UV-B blockage.

At the shore or on the slopes, where rays reflect off sand, snow, or water, you'll be best off with "special purpose" lenses. They absorb 99% of UV-B. Special purpose lenses don't cost any more than the others; sunglass prices are a function of style and materials used.

Another label to look for: CR-39, which denotes an impact-resistant plastic that can withstand the heat that bakes on the protective coating. Typically, sunglasses that sell for less than $10 use plastic that only gets dipped in a coating solution, says Geri DeMarco, a Manhattan optometrist.

To maximize UV-B protection, choose sunglasses that wrap around your temples or have side pieces that ward off rays coming at an angle. The larger the lenses and the closer they fit to your eyes, the better.

What about other fea're Lenses can be polarized duce glare, coated to es scratches, mirror-finishe photochromic—which r they darken as the sui tensity increases. But n these extras improves protection, says Rusty N president of Bonjour Ey in Oceanside, N. Y.

And no matter how you're willing to pay, b mind that you'll probab making only a short-ter vestment. "Sunglasses te get lost, sat on, or le the dashboard to melt," Nevitt. That's what help industry sell some 250 n pairs a year. *Don*

EYE-SAVING LABELS: LENSES CAN BE CHEMICALLY COATED TO PROVIDE UV-B BLOCKAGE OF 70% TO 99%

Smart Money

HAVE THE BIG THREE BOTTOMED OUT?

The road ahead for auto makers has plenty of potholes. The U. S. economy looks dicey, capital spending for new-car models is up, once-robust European markets may be slowing, and a strike threat looms over recently opened contract talks with the United Auto Workers. So what are some auto-stock analysts saying? Buy.

Scott Merlis of Morgan Stanley thinks sales by U. S. car companies could pick up in 1991 as consumers replace older vehicles. He recommends purchasing General Motors and Ford and rates Chrysler as a "hold." Already, carmakers have set third-quarter production plans 9.4% higher than a year earlier. That reflects dealers' new-car inventories, which were at an unusually lean 62 days' supply at the end of June. Higher output should improve revenues and could spark a turnaround in year-to-year earnings comparisons, says Jean-Claude Gruet of UBS Securities. GM, Ford, and Chrysler just reported 1990 second-quarter earnings slides of 38%, 45%, and 47% respectively.

WHERE AUTO STOCKS STAND

Company	52-week high	Price on 7/30/90	Current yield
CHRYSLER	27⅛	15⅛	7.9%
FORD	54⅝	41⅝	7.2
GENERAL MOTORS	50½	47⅜	6.3

DATA: BRIDGE INFORMATION SYSTEMS INC

Auto stocks are certainly cheap: Ford and Chrysler are trading close to their 52-week lows (table). Together, the Big Three carmakers are trading at the lowest ratio of price to cash flow of any group in the Standard & Poor's 500-stock index, says Merlis. "Put in every disaster possible in the realm of realism, and they still come out cheap," he says.

In addition, the stocks offer yields in the 6%-to-7% range and thus serve well the investor who is willing to wait.

For risk-takers, Chrysler is the stock to buy, says Glaser of Gerard Kl Mattison in New York. cently, it has been be down by bad news, inclu sliding market share, th parture of three top ex tives, and a debt downg ing. But Glaser feels worst is over and that stock has bottomed."

Not many other ana are ready to recomm Chrysler just yet. And seph Phillippi of Shea Lehman Hutton is one w hesitant about all th "We're not out of the w yet." He cites concerns a Europe, which has been main profit source for and Ford, plus a new v of competitive cars from anese makers that can aggressively because of softer yen. Still, for som vestors, now may be time to shift out of ne on auto stocks. *Jim T*

x to Companies

ives the starting page for a story or fea-
ignificant reference to a company. Most
are indexed under their own names.
isted only in tables are not included.

house
on

38

ure 100

Group 108

108

38

r 108

on 100

38

/ABC 58

38

23

ttan 110

x 36, 110

re 108

, 122

58, 124

38

oilier 102

36

ank 40

Marriott 107

ts Agency 42

D

De Beers Centenary 53

Delta Woodside Industries 28

Digital Equipment 44, 114

Dow Chemical 58

Drexel Burnham Lambert 102

DWG 44

E

Eagle-Picher Industries 35

Emery Air Freight 36

Emhart 108

Equitable Life Assurance Society 106

ESPN 112

F

Feakins & Feakins 6

Federated Department Stores 38

Fiat 44

Fingerhut 104

First Boston 47

Fitzwilton 108

Ford 28, 44, 58, 124

Forstmann, Little 104

Four Walls Eight Windows Publishing 108

Fujitsu 44

G

Genentech 96

General Signal 58

Getty Oil 108

Global Asset Management 108

GM 28, 58, 124

Goodyear Tire & Rubber 58

Grove Weidenfeld 108

GTE California 44

Guernsey's 122

H

Hartland Bank 6

Hartmarx 38

Heinz (H.J.) 108

Hoechst 96

Holiday Inn 107

I

IBJ Schroder 110

IBM 44, 102, 112, 114

Intel 58, 114

Intercontinental Enterprises 100

Isotec 120

ITT 106

J

JDC 107

Johnson & Johnson 104

K

Kodak 34

L

L.A. Gear 42

Lloyds Bank 49

M

Macy (R.H.) 38

Manhattan 38

Manufacturers Hanover 110

Manville 35

Marine Midland Bank 47

McDonald's 58

MCI 44

MGM/UA 108

Milton Roy 104

N

Nicole Miller 38

Nicolet Instrument 104

Niigata Engineering 55

Nike 116

Nissho Iwai 107

P

Pacific Bell 44

Pennzoil 108

Pepsi-Cola 42

Philadelphia Coca-Cola Bottling 42

Philip Morris 58

Pillsbury 47

Primerica 104

Procter & Gamble 34

Promus Companies 107

R

Reebok 44, 116

Renown 108

Revlon 108

Richard Wolffers 122

S

Salant 38

Shearson Lehman Hutton 110

Siebe 104

SmithKline Beecham 96

Sotheby's 110, 122

STC 44

Stotler Group 44

Sun Microsystems 114

Sundstrand 104

T

Tandy 114

Tektronix 58

Texaco 108

The Limited 38

Thermo Instruments 104

Thomaston Mills 28

3M 34

Toyota 112

U

Uniroyal 102

United Airlines 6

W

Wang Laboratories 58

Wasserstein, Perella 36

Waterford Wedgwood 108

Wheatland 108

Take care of business.

☐ I'm moving, please change my address as indicated below

☐ Please extend my Business Week subscription for one year at **$39.95** (In Canada, C$ 54.95)

☐ I'd like to become a subscriber for one year (51 issues) at **$39.95**

Name (please print)

Address

City

State Zip

☐ Check enclosed. ☐ Bill me later

To take care of any other business, call

1-800-635-1200

Affix your present Business Week mailing label here

Mail entire ad to
Business Week
P.O. Box 421
Hightstown,
N.J 08520

BusinessWeek
SUBSCRIBER SERVICE

A growing force in American journalism

Insight magazine, the first new newsmagazine in the U.S. in over 50 years, was designed to meet the demanding news needs of America's opinion leaders. Now in its fifth year of publishing, it is still the *only* newsmagazine tailor-made for *today's* increasingly busy executive.

The magazine's editors are fully aware that Insight readers are already—and have to be—well informed. Insight seeks to help readers become *better* informed—by providing them with information they can *use* to make intelligent decisions in their business and personal lives.

Unfettered by the traditional concept that newsmagazines review the previous week's news, Insight has established its own distinctive niche. It is a contemporary news medium that picks up where others leave off, that looks ahead rather than back.

Insight provides its readers with *thorough* reporting of the important issues and trends shaping tomorrow's news agenda. It packages this vital information in a format, and with a succinctness, th makes for *quick and easy access*.

The quality of Insight's subscribers is testamen to the quality of the magazine that attracts them. Almost nine in 10 are college educated, average household income is over $73,000 and 65% hold management or professional positions.

Insight continues to build its reputation for important journalism. In just 4½ years, it has earne more than a dozen awards for reporting and design. Among them: a 1989 second place for news coverag in the prestigious National Headliner Awards; a prized Gavel Award from the American Bar Association; three awards (first place, second place and honorable mention) in the 1990 White House News Photographers' Association contest; three 198 honors from both the Society of Illustrators and the Mercury Awards judges.

Last but certainly not least, four of Insight's cover stories were among the final selections that 1990 MediaGuide named as "The Best Stories and Columns of 1989."

Insight
on the news

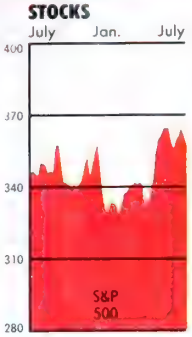
Advertising Headquarters
200 Park Avenue, Suite 1502, New York, NY 10166 • 212-599-1730
Boston 617-332-8596 • Chicago 312-346-8810
Dallas 214-931-9001 • Detroit 313-354-5050 • Los Angeles 213-641-8449

estment Figures of the Week

RY

-expected report on
ned recession fears.
bond buyers, and
oss the board. The
erest rates couldn't
k market much, which
ause of disappointing
er earnings and fad-
an improvement in
d half. Small-compa-
e especially hard hit.
d to surge, aided by
EC agreement to
on and bolster

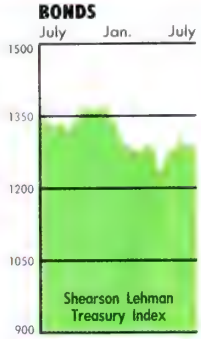
STOCKS



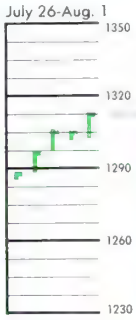
52-week change
+3.2%

1-week change
–0.4%

BONDS

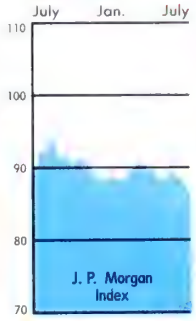


52-week change
–5.3%

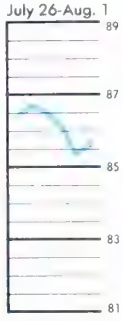


1-week change
+2.0%

THE DOLLAR



52-week change
–4.9%



1-week change
–0.9%

ET ANALYSIS

KS	Latest	% change Week	% change 52-week
INDUSTRIALS	2899.3	–1.1	9.1
NIES (Russell 1000)	184.0	–0.6	1.3
PANIES (Russell 2000)	160.8	–1.8	–7.8
NIES (Russell 3000)	195.7	–0.6	0.7

TOCKS	Latest	% change (local currency) Week	% change (local currency) 52-week
NANCIAL TIMES 100)	2339.0	–1.1	1.4
KEI INDEX)	30,838.0	–2.7	–11.6
SE COMPOSITE)	3569.2	0.4	–10.3

FUNDAMENTALS	Latest	Week ago	Year ago
90-DAY TREASURY BILL YIELD	7.7%	7.8%	7.9%
30-YEAR TREASURY BOND YIELD	8.4%	8.6%	7.8%
S&P 500 DIVIDEND YIELD	3.4%	3.3%	3.1%
S&P 500 PRICE/EARNINGS RATIO	16.5	16.5	13.4

TECHNICAL INDICATORS	Latest	Week ago	Reading
S&P 500 26-week moving average	346.7	345.6	Positive
Stocks above 26-week moving average	42.8%	42.1%	Neutral
Speculative sentiment: Put/call ratio	0.42	0.42	Positive
Insider sentiment: Vickers sell/buy ratio	1.27	1.25	Positive

TRY GROUPS

BRIDGE INFORMATION SYSTEMS INC

C LEADERS	% change 4-week	% change 52-week	Strongest stock in group	% change 4-week	% change 52-week	Price
EQUIPMENT AND SERVICES	13.9	50.9	BAKER HUGHES	17.2	59.5	31½
AS DRILLING	12.2	34.2	ROWAN	15.2	55.9	13¼
	10.0	7.4	PHELPS DODGE	15.6	26.0	69⅝
ONAL OIL	9.6	24.8	CHEVRON	12.6	46.3	79⅜
	9.5	9.1	REYNOLDS METALS	12.5	27.1	66¼

C LAGGARDS	% change 4-week	% change 52-week	Weakest stock in group	% change 4-week	% change 52-week	Price
SOFTWARE AND SERVICES	–22.2	–5.1	COMPUTER ASSOCIATES INTL.	–47.7	–53.5	8⅜
RETAILERS	–11.5	5.7	LIMITED	–16.5	12.5	20¼
DING	–11.5	–31.3	CENTEX	–15.7	–14.6	33½
D MOTELS	–11.5	–52.0	PRIME MOTOR INNS	–28.6	–82.8	5⅝
	–11.2	–25.1	USAIR	–14.9	–57.2	21⅜

AL FUNDS

MORNINGSTAR INC.

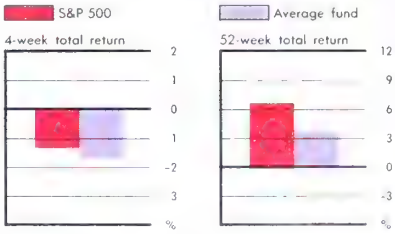
al return	%
SELECT ENERGY SERVICE	7.7
MCKINNON PRECIOUS METALS	7.4
TRATEGIES	7.3

al return	%
TRATEGIES	68.7
SELECT BIOTECHNOLOGY	48.8
SELECT ENERGY SERVICE	46.8

LAGGARDS

Four-week total return	%
PRUDENT SPECULATOR LEVERAGED	–12.8
STRATEGIC GOLD/MINERALS	–9.2
FIDELITY SELECT SOFTWARE & COMPUTER	–8.7

52-week total return	%
FIDELITY SELECT BROADCAST & MEDIA	–23.2
WASHINGTON AREA GROWTH	–22.1
FIDELITY SELECT REGIONAL BANKS	–20.9



VE PORTFOLIOS

DATA RESOURCES INC.

unts
ne present
0,000
e year
portfolio

indicate
l returns

Money market fund
$10,711
+0.15%

U. S. stocks
$10,427
+0.10%

Treasury bonds
$10,324
+2.08%

Gold
$10,070
+0.98%

Foreign stocks
$9,605
–0.02%

s page are as of market close Wednesday, Aug. 1, 1990, unless otherwise indicated. include S&P 500 companies only; performance and share prices are as of market close July 31. Mutual fund returns are as of July 27. Relative portfolios are valued as of July 31. A more detailed explanation of this page is available on request.

LET'S FIGHT THE RIGHT ECONOMIC WAR

The U. S. economy is crying for help. Half of it is already in a recession, and the other half is on the brink. Washington must cut the budget deficit and ease monetary policy, and—most important—do it now.

Quick action is essential because the economy may already be sinking. The report on second-quarter gross national product showed that final demand—spending by consumers, businesses, government, and foreigners—fell at an annual rate of 1.5%, the first decline since the last recession ended in 1982. During the past year, demand growth has fallen to only 1.2%, an expansion low, and the fundamentals in each sector look shaky. That means the outlook for spending in the second half is dim. And without new orders, manufacturing will get even weaker. Factories have already laid off 325,000 workers since April, 1989. Job growth elsewhere is in a sharp slowdown, and the unemployment rate seems sure to rise in coming months.

The Federal Reserve Board should go ahead and ease monetary policy again, on top of the July 13 cut in the federal funds rate. That would support a sagging economy and offset the higher taxes that will accompany a budget deal. The Fed simply has to take its chances with inflation. And the odds are not bad. Slow growth now almost certainly means that lower inflation lies ahead. During the past five quarters, the economy has grown a paltry 1.3%, with growth no higher than 1.7% in any quarter. That will take the pressure off prices in 1991.

The costs of existing problems such as the budget deficit and the thrift bailout would mushroom in a recession, and they could threaten an already shaken financial system. Although a lack of the usual economic extremes, such as heavy inventories and high inflation, might suggest that a recession would be mild, the real estate glut and the unprecedented levels of debt pervading all economic sectors suggest that the next downturn could be gut-wrenching. Washington's policy imperative must be to keep the expansion going. Fighting inflation now is fighting the wrong war.

WE NEED TO REPAIR OUR ECONOMIC COMPASS

Only a week or so ago, the U. S. economy seemed to be plodding along at a respectable, if unexciting, rate. Now, it appears that the economy has been dangerously close to recession for a year or more. These contrasting views were put in focus by the startling July 27 revisions of the national accounts. While the changes weren't all that large by historical standards, they came at a critical time when economists were trying to gauge the health of the expansion. This highlights our broader need for better economic data.

It wasn't always that way. The U. S. used to know more about its economy—and know it faster and more accu ly—than any other nation. But the Reagan budget cu eroded the quality of data collection that many of the n bers put out by the government are regarded by profes als with suspicion. The 1990 report of the Council of nomic Advisers warned that "many analysts question accuracy of measurement of even the most basic of ables, such as output and inflation."

While the U. S. system weakened, Japan, many Euro nations, and Canada upgraded their statistical systems. means they have better pictures of where their econo have been and where they are heading and can better d policies to keep them on healthy tracks.

In today's volatile economic climate, inadequate info tion can have a devastating effect on the decisions of p makers, businesses, and the financial markets. It's long time the government jettisoned economic models that silicon wafers into a category of manufactured goods th dominated by bricks and cinder blocks.

As the economy teeters on the brink of recession, gress should consider the extent to which the nation's nomic predicament is the result of decisions made on basis of inadequate and faulty data. It's a problem could be fixed for a relative pittance.

GO EASY ON FANNIE AND FREDDIE

The savings and loan mess grew to economy-wrec proportions through unchecked abuse of federal ga antees. With this lesson still painfully fresh, the Bu Administration is drawing a bead on the two giant hou agencies that have made good use of the governm name: the Federal National Mortgage Assn. and the Fed Home Loan Mortgage Corp., more familiarly known as nie Mae and Freddie Mac.

Fannie and Freddie are privately held companies government charters. They buy home loans from banks thrifts, bundle them into securities, and sell them to ins tional investors. They have an implied government gua tee on all $650 billion of their debt. Now, the Administra wants to force them to raise enough capital to gain A ratings, over five years, as if they didn't have U. S. back

There is the germ of a good idea here, but the propo treatment calls for a sledgehammer where a scalpel w be more appropriate. The AAA standard is almost imp ble to achieve: Only two U. S. banks can claim it. Fannie and Freddie should bolster their capital to pr taxpayers. But the levels should be set by regulators. two agencies shouldn't be punished for succeeding in mandate to make housing money affordable.

Freddie and Fannie could also be trimmed by targe their efforts at smaller mortgages. Currently, they can loans as high as $187,450. Banks would love to package middle-income business, but they can't compete.

Above all, such changes should be phased in gently. the housing market in disarray, this is not the time to up the charters of its two key profitable players.

ESS WEEK
August 20

3 9042 02350151 0

BusinessWeek

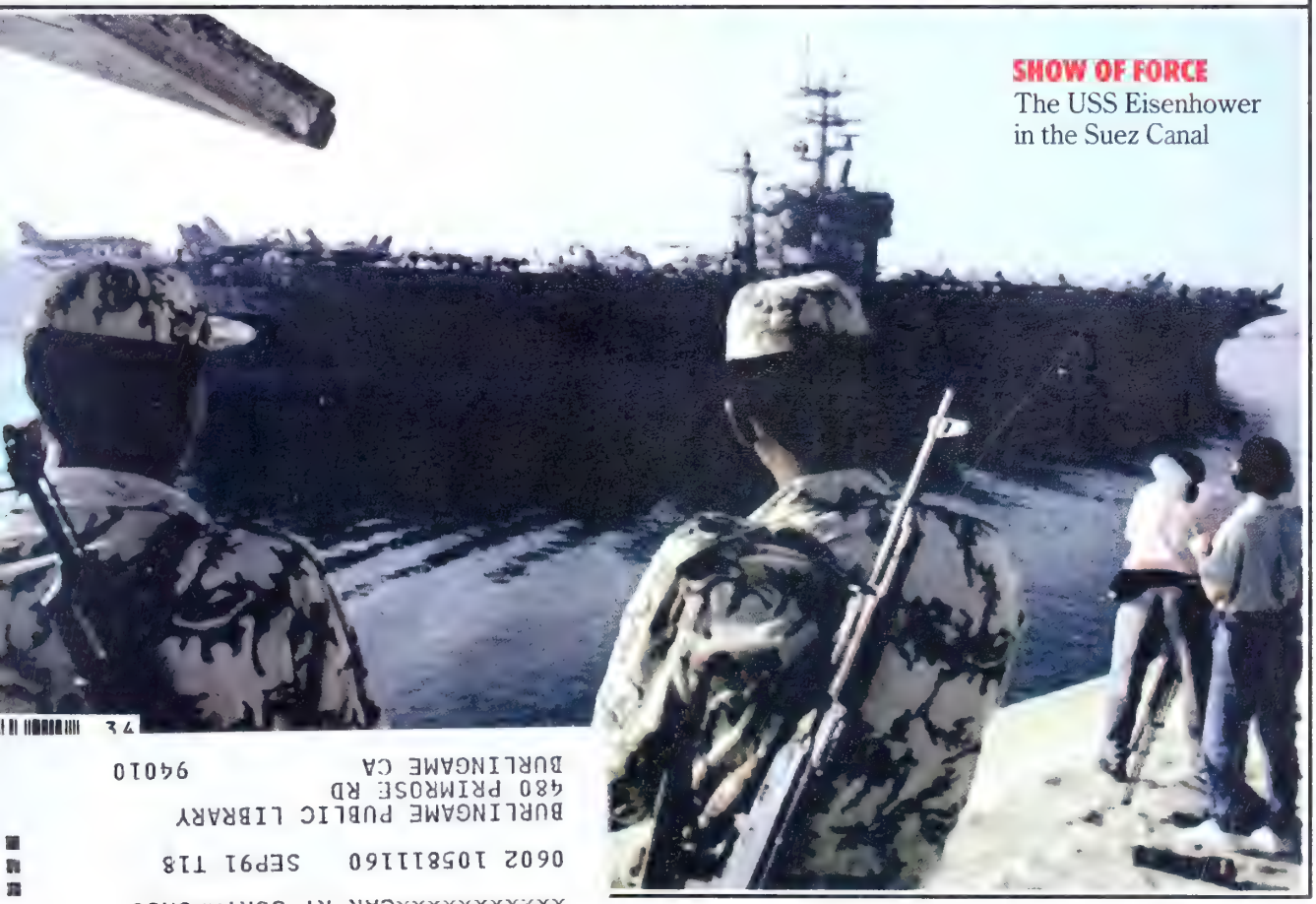
UST 20, 1990 A McGRAW-HILL PUBLICATION $2.00

OIL WAR

BURLINGAME
AUG 13 1990
LIBRARY

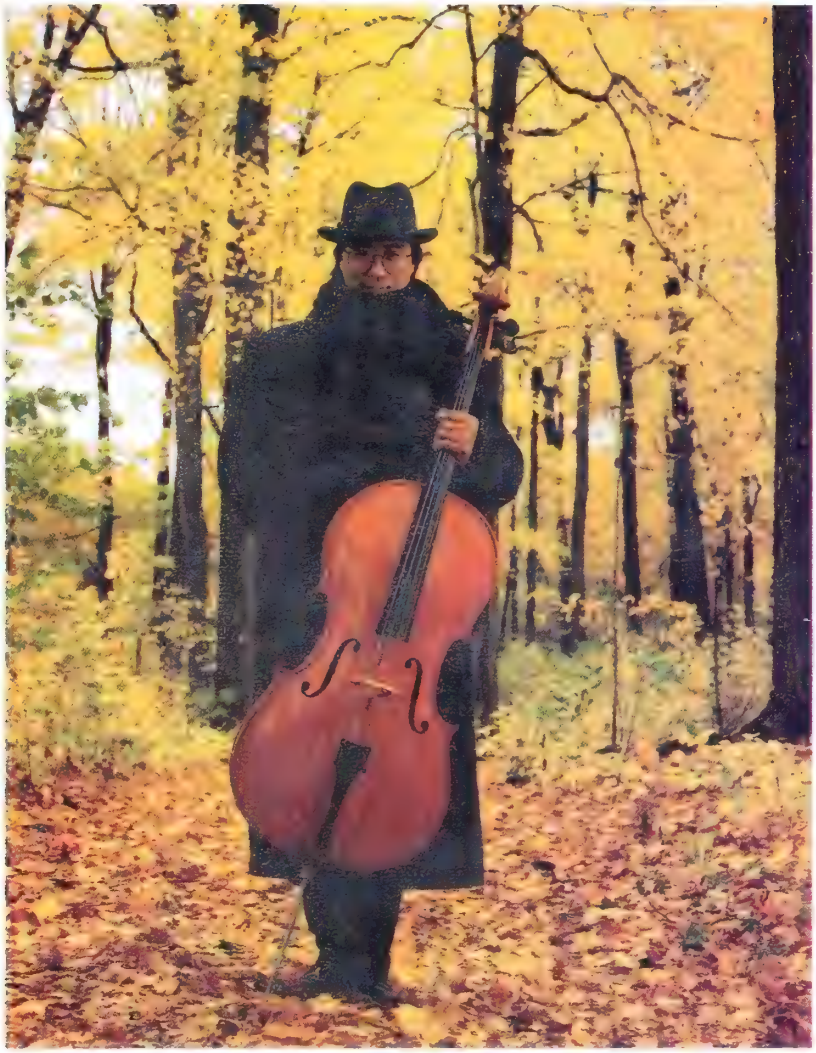
PAGE 22

USH LEADS THE WORLD AGAINST IRAQ



SHOW OF FORCE
The USS Eisenhower in the Suez Canal

**********CAR-RT-SORT**CR30
0602 1058111160 SEP91 T18
BURLINGAME PUBLIC LIBRARY
480 PRIMROSE RD
BURLINGAME CA 94010



Yo-Yo Ma. Cardmember since 1978.

Membership
Has Its Privileges.®

Don't leave home without it®.

Call 1-800-THE CARD to apply.

©1991 American Express Travel Related Services Company, Inc.

If you're already pretty good at what you do but want to be even better, you're probably ready for the Dale Carnegie Course.®

You know deep down you've got it in you to excel, to reach more of your goals in a shorter period of time and to gain the success you want and deserve. But there may be some added qualities you need to help you achieve these objectives. You may need to speak more effectively, to get your ideas across to others with greater force and conviction. Perhaps you need to be able to inspire the people around you, to instill in them a greater sense of cooperation and team spirit. And you may need the skills to handle your responsibilities with more confidence and self-assurance.

The Dale Carnegie Course® is designed to help men and women discover, develop and use more of their untapped inner resources. It helps them build on these innate human talents and capabilities and draw upon them every day to meet the challenges in their work, in their lives. That's why thousands of companies from the small business to the large corporation choose Dale Carnegie® Training to bring out the best in their people. In fact, 400 of the Fortune 500 companies use Carnegie Training.®

In the Dale Carnegie Course,® you learn to communicate with clear, concise language that gains the attention of others and reduces misunderstanding. You learn how to determine what motivates people, what makes them think and act as they do. And you become better able to interact with others with greater harmony and cooperation.

Participants soon feel a positive difference in themselves. Their self-image is enhanced, their self-confidence grows. They become more enthusiastic, more alert, more energetic and self-reliant. Their personalities become more vibrant, more interesting and attractive to others. And they are better able to control tension and stress. They discover a new vitality, a new excitement as they begin to use their newly developed skills and abilities to reach the goals they set for themselves.

Find out how the Dale Carnegie Course® can help you become even better at what you do. For more information about Dale Carnegie® Training, ask for your free copy of our quick-reading booklet that outlines the courses in greater detail. Call toll-free **800 231-5800.** Or write directly to the address below.

We Deliver Leadership Training Worldwide

DALE CARNEGIE & ASSOCIATES, INC.

SUITE 480B • 6000 DALE CARNEGIE DRIVE (PVT.) • HOUSTON, TEXAS 77036

ACCREDITED BY THE ACCREDITING COUNCIL FOR CONTINUING EDUCATION & TRAINING, INC., ACCET

NUMBER 3174

BusinessWeek

AUGUST 20, 1990

SHIPPING OUT: THE 26TH MARINE EXPEDITIONARY UNIT EMBARKS FOR THE MEDITERRANEAN FROM MOREHEAD CITY, N.C.

Cover Story

22 OIL WAR
So far, President Bush has rallied world leaders against Iraq. But with global economic anxiety spiraling, it is anyone's guess how long such commitments will last. By drawing a line in the sand, Bush may have pledged the U. S. to a risky, extended presence in a region that has long been a minefield for outsiders

26 IF SADDAM CAN BE STOPPED . . .
. . . OPEC under Saudi domination would keep prices low, output high

28 SHADES OF THE SEVENTIES
This time, though, the industrial giants may avoid stagflation

32 DREAM DEFERRED
The Persian Gulf Crisis puts a budget deal back on the backseat

33 MUGGED MARKETS
Now, there's a new name for hostages: Investors

35 THE BIG CHILL
Who'll get Kuwait's frozen assets?

Top of the News

38 PICKING A UAW STRIKE TARGET
Both Ford and Chrysler want the honor for different reasons, but the union is eyeing GM

39 L.A. GEAR: TRIPPING ON ITS LACES
Massive inventories, aggressive accounting, and ad woes are dragging the shoemaker down

40 BREAKING RANKS IN CELLULAR
An uproar as Nynex and Ameritech opt for a new technology that threatens to fragment the industry

41 A NEW INSURANCE POLICY?
As more insurers fail, Congress asks if state regulators are up to the job

42 IN BUSINESS THIS WEEK
Malice in Businessland, Allegheny, Shiley's heart valves, prefab spitballs, Emerson, Sears

International

48 GERMANY
Kohl could get thrown in the wild ride to reunification

49 SOUTH AFRICA
De Klerk's peace push gives the West a tricky choice on sanctions—reward progress or hold out for me

50 INTERNATIONAL OUTLOOK
Will Lech Walesa's hubris be the o thing Solidarity can't survive?

Economic Analysis

14 ECONOMIC VIEWPOINT
Kuttner: Don't expect any quick rescue work by the government as the economy sinks

18 ECONOMIC TRENDS
When 'up' means 'down,' a boom in bankruptcies, elderly parents

19 BUSINESS OUTLOOK
The guns of August could shoot down the low-flying economy

Government

45 WASHINGTON OUTLOOK
The bills to reform campaign financing: Not worth the paper they're written on?

74 SIDESTEPPING SADDAM: IRAQ HAS THROWN A WRENCH INTO THE WORLD'S FINANCIAL MARKETS—BUT INVESTORS MAY YET HAVE A FEW TOOLS AT THEIR DISPOSAL

58 MR. CULTURE GOES TO WASHINGTON: CAN JIM WOLFENSOHN—INVESTMENT BANKER, CARNEGIE HALL CHAIRMAN, AMATEUR CELLIST, CHAMPION OF THE ARTS—REVIVE THE KENNEDY CENTER?

92 ROBOCOPS AND ASTROBOTS: MOBILE ROBOTS THAT FIGHT FIRES AND DEFUSE TERRORIST BOMBS ARE HERE, AND ORBITING MACHINES THAT CAN FIX SATELLITES ARE ON THE WAY

57 OSHA IS BACK
Its new chief, Gerard Scannel, has got the agency growling by putting teeth into his safety-pays campaign

People

58 JIM WOLFENSOHN'S FULL PLATE
The investment banker can't resist a challenge. His latest: Reversing the fortunes of the Kennedy Center

The Corporation

62 BACK TO BASICS FOR BALL
As defense orders shrink, the company shifts focus from Star Wars to containers

64 CAUSE FOR ALARM AT CHARTER
Mental-health care cuts are squeezing the psychiatric-hospital chain's expansion plans

Marketing

68 LYCRA IS SPANDEXING THE GLOBE
How Du Pont keeps 'em coming back for more of its stretch fiber years after its patent expired

Environment

70 PANTHERS VS. POLLUTION
The Park Service is struggling against private development and air and water pollution

72 'DELICATE PLUMBING'
How the Forest Service is tinkering with Yellowstone's ecosystem

Finance

74 WHAT'S AN INVESTOR TO DO?
Natural-gas and precious-metals stocks may offer the most hope

77 REHEATING MR. COFFEE
A restructuring and a successful IPO

80 THE PRU'S LATEST COUP
Staking midsize growth companies in Asia is earning it hefty returns

82 INSIDE WALL STREET
Time Warner and the Japanese
Applause for a 'smart' piano
A lift from Erté's legacy

105 INVESTMENT FIGURES OF THE WEEK

70 UH-OH, WILDERNESS: BATTLING POLLUTION AND DEVELOPMENT, U.S. NATIONAL PARKS MAY BE FACING THE MOST DIFFICULT PERIOD IN THEIR HISTORY

Information Processing

86 REPROGRAMMING CRAY
Minus its bureaucratic president, will it recapture its free-form style?

88 LIFE AFTER LASSIE
Tommy Rettig is a software star now

Science & Technology

89 DEVELOPMENTS TO WATCH
Blood tests, MISC chips, better vision, weather forecasts, cockroaches

92 ROBOTICS' GOLDEN AGE
Robots are coming into their own

93 'ROBOT PARADISE'
You guessed it. It's Japan

Personal Business

100 ENVIRONMENT: Better offices
AUTOS: The snappy Acura NSX
SMART MONEY: New multifunds

Features

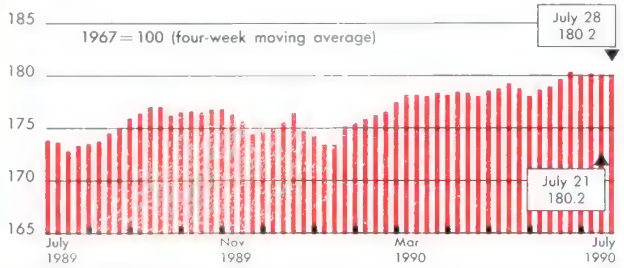
4 BUSINESS WEEK INDEX
5 READERS REPORT
8 CORRECTIONS & CLARIFICATIONS
10 BOOKS
Fucini and Fucini: *Working for the Japanese*
Gelsanliter: *Jump Start: Japan Comes to the Heartland*
103 INDEX TO COMPANIES
106 EDITORIALS
The right response in Saudi Arabia
Breaking the U. S.'s oil addiction

ness Week (ISSN 0007-7135) published weekly, except for one issue in January, by McGraw-Hill Inc. U. S. subscriber rate $39.95 per year. In Canada, one year: CDN $54.95. Single es $2.00. Executive, Editorial, Circulation, and Advertising Offices: 1221 Avenue of the Americas, New York, N. Y. 10020. Second-class postage paid at New York, N. Y., and at additional mailing es. Postage paid at Montreal, P. Q. Registration Number 9010. Title Reg. in U. S. Patent Office. **Postmaster:** Send address changes to BUSINESS WEEK, P. O. Box 430, Hightstown, N. J. 08520

BusinessWeek Index

PRODUCTION

Change from last week: 0.0%
Change from last year: 3.9%

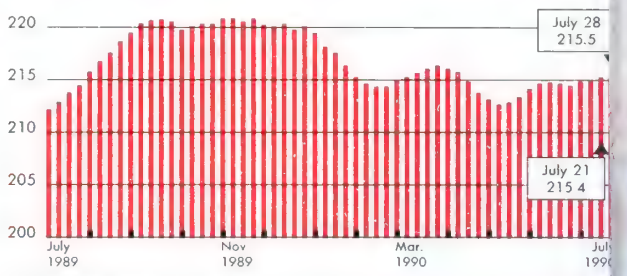


The production index was unchanged for the week ended July 28. On a seasonally adjusted basis, output of coal, rail-freight traffic, paperboard, paper, lumber, and electric power fell, while truck and auto production increased. Output of steel and crude-oil refining was unchanged for the week. Before calculation of the four-week moving average, the index fell to 179.6 from 180.7. For the month of July, the index dropped to 180.2 from 180.5 in June.

BW production index copyright 1990 by McGraw-Hill Inc.

LEADING

Change from last week: 0.0%
Change from last year: 0.4%



The leading index was little changed for the week ended July 28. In the lates week, stock prices and the growth rates for real estate loans and M2 were all lower while business failures and bond yields rose. The rate of decline in materials price was smaller than in the previous week. Before calculation of the four-week moving average, the index dropped to 214.6 from 215.7. For the month of July, the inde increased to 215.5 from June's level of 214.6.

Leading index copyright 1990 by Center for International Business Cycle Research

PRODUCTION INDICATORS

	Latest week	Week ago	% Change year ago
STEEL (8/4) thous. of net tons	1,858	1,845 #	–0.2
AUTOS (8/4) units	98,167	96,811r #	15.8
TRUCKS (8/4) units	69,685	77,310r #	–3.5
ELECTRIC POWER (8/4) millions of kilowatt-hours	62,926	63,003 #	0.5
CRUDE-OIL REFINING (8/4) thous. of bbl./day	14,455	14,361 #	7.7
COAL (7/28) thous. of net tons	20,493 #	20,458	11.9
PAPERBOARD (7/28) thous. of tons	749.8 #	764.0r	–0.9
PAPER (7/28) thous. of tons	753.0 #	741.0r	4.1
LUMBER (7/28) millions of ft.	487.7 #	486.4	–6.7
RAIL FREIGHT (7/28) billions of ton-miles	20.7 #	20.7	8.9

Sources: American Iron & Steel Inst., *Ward's Automotive Reports*, Edison Electric Inst., American Petroleum Inst., Energy Dept., American Paper Inst., WWPA[1], SFPA[2], Association of American Railroads.

FOREIGN EXCHANGE

	Latest week	Week ago	Year ago
JAPANESE YEN (8/8)	150	147	141
GERMAN MARK (8/8)	1.60	1.59	1.91
BRITISH POUND (8/8)	1.86	1.85	1.60
FRENCH FRANC (8/8)	5.36	5.33	6.49
CANADIAN DOLLAR (8/8)	1.15	1.15	1.17
SWISS FRANC (8/8)	1.35	1.35	1.66
MEXICAN PESO (8/8)[3]	2,871	2,873	2,522

Sources: Major New York banks. Currencies expressed in units per U. S. dollar, except for British pound expressed in dollars.

PRICES

	Latest week	Week ago	% Change year ago
GOLD (8/8) $/troy oz.	384.750	370.650	5.5
STEEL SCRAP (8/7) # 1 heavy, $/ton	118.00	119.50	8.3
FOODSTUFFS (8/6) index, 1967 = 100	215.9	223.6	–2.6
COPPER (8/4) ¢/lb.	131.8	127.5	11.2
ALUMINUM (8/4) ¢/lb.	80.0	74.3	–3.4
WHEAT (8/4) # 2 hard, $/bu.	2.90	3.05	–30.5
COTTON (8/4) strict low middling 1-1/16 in., ¢/lb.	79.31	79.77	13.2

Sources: London Wed. final setting, Chicago mkt., Commodity Research Bureau, *Metals Week*, Kansas City mkt., Memphis mkt.

LEADING INDICATORS

	Latest week	Week ago	% Char year a
STOCK PRICES (8/3) S&P 500	352.26	355.51	2
CORPORATE BOND YIELD, Aaa (8/3)	9.19%	9.26%	4
INDUSTRIAL MATERIALS PRICES (8/3)	102.5	101.5	–0
BUSINESS FAILURES (7/27)	269	244	30
REAL ESTATE LOANS (7/25) billions	$377.2	$376.7r	10
MONEY SUPPLY, M2 (7/23) billions	$3,289.6	$3,289.1r	5
INITIAL CLAIMS, UNEMPLOYMENT (7/21) thous.	355	358	3

Sources: Standard & Poor's, Moody's, *Journal of Commerce* (index: 1980 = 100), Dun Bradstreet (failures of large companies), Federal Reserve Board, Labor Dept. CIBCR seas ally adjusts data on business failures and real estate loans.

MONTHLY ECONOMIC INDICATORS

	Latest month	Month ago	% Char year a
BUSINESS WEEK PRODUCTION INDEX (July)	180.2	180.5	4
BUSINESS WEEK LEADING INDEX (July)	215.5	214.6r	0
EMPLOYMENT, CIVILIAN, MILLIONS, (July)	118.0	118.4	0
UNEMPLOYMENT RATE, CIVILIAN (July)	5.5%	5.2%	3

Sources: BW, CIBCR, BLS

MONETARY INDICATORS

	Latest week	Week ago	% Char year a
MONEY SUPPLY, M1 (7/23)	$808.0	$807.9r	4
BANKS' BUSINESS LOANS (7/25)	319.7	321.2r	–0
FREE RESERVES (7/25)	323r	480r	–65
NONFINANCIAL COMMERCIAL PAPER (7/25)	145.0	146.8	16

Sources: Federal Reserve Board (in billions, except for free reserves, which are expressed a two-week period in millions).

MONEY MARKET RATES

	Latest week	Week ago	Year ago
FEDERAL FUNDS (8/7)	8.05%	8.05%	8.98
PRIME (8/8)	10.00	10.00	10.50
COMMERCIAL PAPER 3-MONTH (8/7)	7.74	7.78	8.43
CERTIFICATES OF DEPOSIT 3-MONTH (8/8)	7.90	7.88	8.56
EURODOLLAR 3-MONTH (8/1)	7.88	8.00	8.48

Sources: Federal Reserve Board, First Boston

# Raw data in the production indicators are seasonally adjusted in computing the BW index (chart); other components (estimated and not listed) include machinery and defense equipme
1 = Western Wood Products Assn. 2 = Southern Forest Products Assn. 3 = Free market value NA = Not available r = revised NM = Not meaningful

AKASAKA PRINCE HOTEL. WHAT BUSINESS IS COMING TO IN TOKYO.

For location, comfort and service, The Akasaka Prince Hotel towers far above the rest. All 761 guest rooms offer ample work space, complete privacy and spectacular views. There are twelve superb restaurants and lounges to choose from. Or you can enjoy room service around the clock. For fail-safe reservations, Call Prince Hotels
U.S.A. 800-542-8686
Canada except Toronto
800-268-7677
Toronto 416-444-2511
Westin Hotels & Resorts
U.S.A.&Canada
800-228-3000
Utell International
U.S.A. 800-44 UTELL
Canada 800-668-1513
Ontario/Quebec
800-387-8842
or The Akasaka Prince Hotel in Tokyo at
03-234-1111 by phone or
03-262-5163 by Facsimile
or 232-4028 AKAPRH J by telex.

Akasaka PRINCE HOTEL
TOKYO

INTRODUCING BOMBAY SAPPHIRE

The gin is unprecedented in its creation. The bottle is unprecedented in its beauty. Bombay Sapphire.

Distilled with rare and precious botanicals including Coriander Seeds from Morocco, Grains of Paradise from the Gold Coast and Cubeb Berries from Java. A total of ten of the most unusual flavors on Earth.

Their spirit is preserved in Sapphire's unique distillation where the gin vapors pass through each botanical, one by one.

Bombay Sapphire. As complex and extraordinary as the jewel that was its namesake.

47% alc/vol (94 Proof) • Bombay Sapphire Gin • 100% grain neutral spirits ©1988 Carillon Importers, Ltd., Teaneck, N.J.

POUR SOMETHING PRICELESS.

Is CentraNet the best all around phone system for your business?

Well, Yes and No.

	CentraNet	Key Systems
Do I have to spend any money up front for special equipment?	NO	YES
Does my system go down if there's a power outage?	NO	YES
Does the system's features use the telephone company's central switch?	YES	NO
Is the system checked by computer 24 hrs. a day to prevent breakdown?	YES	NO
Is my technology automatically upgraded?	YES	NO
Can new feature packages be added on an individual basis instead of just a system wide basis?	YES	NO
Can I add extra features with just a phone call instead of having an installer come to my business?	YES	NO
Can I add lines and features to other locations with just a phone call?	YES	NO
Does CentraNet work with the phones I already have?	YES	NO

We thought you might appreciate a little help in choosing a new phone system for your company. A shopping list of sorts. Take a minute, go through the questions and answers.

You'll begin to realize why a CentraNet phone system from GTE is the best answer to your company's phone system dilemma. You don't need a Ph.D. in Phone. All you need to do is call 1-800-462-6000, and order CentraNet. The way we see it, a phone system that gives a small business anything less than complete peace of mind should be out of the question.

CentraNet

GTE

THE POWER IS ON

4D-CA

BusinessWeek

ITOR-IN-CHIEF: Stephen B. Shepard
ANAGING EDITOR: John A. Dierdorff
IEF ECONOMIST: William Wolman
SISTANT MANAGING EDITORS:
nn Maughan, Mark Morrison, Anthony J Parisi
T DIRECTOR: Malcolm Frouman
NIOR EDITORS: Bob Arnold, Nancy Cardwell, Robert J. Dowl-g, Stuart Jackson, Richard F. Janssen, Geoff Lewis, Sally owell, Ciro Scotti, Lee Walczak (Washington), G. David Wal-ce, Seymour Zucker
TORIAL PAGE EDITOR: John E. Pluenneke
IEF OF CORRESPONDENTS: Keith G. Felcyn
TERNATIONAL EDITION EDITOR: Frank J. Comes
NIOR WRITERS: Anthony Bianco, John A. Byrne, Judith H. obrzynski, John Hoerr, Gene G. Marcial, Bruce Nussbaum, hn Pearson, Otis Port, Chris Welles, Brenton Welling
SOCIATE EDITORS: Duane E. Anderson, Robert Barker, Eliza-th Ehrlich, Marc Frons, William J. Holstein, Jeffrey M. Lader-an, William D. Marbach, Mark N. Vamos
RECTOR, EDITORIAL SYSTEMS & OPERATIONS: Thomas J. Reed
NIOR SYSTEMS MANAGER: Richard I. Ulman
CTURE EDITOR: Lawrence Lippmann
ONOMICS: James C. Cooper (Business Outlook editor), Kath-n Madigan (Assoc.). Karen Pennar (Economics editor), Chris-her Farrell (Assoc.), Michael J. Mandel (Assoc.). Gene Koretz conomic Trends editor). William Glasgall (International)
PARTMENT EDITORS: Books: Denise Demong. **Corporate Fin-ce:** Larry Light, David Zigas (Assoc.). **Industries:** Thane Peterson **ormation Management:** Jeffrey Rothfeder. **Information Pro-essing:** John W. Verity **International Edition:** Elizabeth Weiner **ernational News:** Peter Galuszka. **Investment Banking:** Jon edman. **Labor:** Aaron Bernstein. **Legal Affairs:** Michele B. Galen **rketing:** Christopher Power, Amy Dunkin (Assoc.). **Markets & estments:** Gary Weiss **Media:** Susan Duffy. **Money & Banking:** n Meehan. **News:** Harris Collingwood. **People:** Peter Finch **Per-nal Business:** Donald H. Dunn. **Science:** Emily T. Smith. **Score-ards:** Robert Mims. **Telecommunications:** Peter Coy. **Transpor-ion:** Michael Oneal
AFF EDITORS: Brian Bremner, Deidre A. Depke, Naomi Freundlich, ce Hager, Fred F. Jespersen, Mark Landler, Leah J. Nathans, nley Reed, Monica Roman, Andrea Rothman, Troy Segal, Suzanne oley
SISTANT EDITOR: Laura Zinn
PY EDITORS: Harry Maurer (Deputy chief), Michael Mercurio, Joan mer (Asst. chiefs); Marc Miller, Jack Robbins, Jim Taibi (Sr. Copy tors), Tim Belknap, Pam Black, Prudence Crowther, Carl Desens, dy Green, Aleta Kaufman, Cynthia McClean, David Pengilly, Malka cal, Barbara Tierney; Dalia Kandiyoti, Kim Jacobs, Aida Rosario, ecca Stead (Researchers)
ODUCTION COPY EDITORS: Donald Halsband (Chief), Hallberg mundsson, Robert S. Norman; Celine Keating, Karen Leiner, Ste-n M Romanoff
T: Laura Baer, Steven Taylor (Deputy directors), Jeri Hansen, Eric enberg (Assoc directors), Pamela Harris, Craig Socia (Asst. direc-). **Graphics:** Arthur Eves (Director), Joan Danaher (Deputy direc- Rob Doyle (Sr. Illustrator), Laurel Daunis, Ray Vella (Illustrators) **duction:** Mary Lee Schneider (Mgr.), Stephen J. Romeo (Asst)
OTOS: Sue Bloom (Deputy Picture editor); Scott Miyn (Assoc Pic-editor), Todd James, Anne Murray, Ronnie Weil (Asst editors) leen Daly (Researcher). Bettina Baudoin (Researcher - Paris) n Clark (Traffic), Lawrence Crowe (Libraran)
TORIAL OPERATIONS: Albert E. Baker, Richard Balestrino, A. Pe-Clem, Yvonne Rodriguez, Claire Worley (Production managers) mas R. Dowd, Sharon L. Eng, Fidel Lee, Jose L. Martin, Jane M inson, Craig Sturgis, Karen Turok, Ilse V. Walton, Nicholas White keup editors), Felix Lindicy (Makeup asst.). Donald C. Pearson ffic manager), Dale I. Arnold, Edgardo Torres (Production assts.)
RESPONDENTS: Jerome Zukosky (Deputy chief) **Atlanta:** Chuck kins (Mgr.), Walecia Konrad **Boston:** Keith H. Hammonds (Mgr.), a Jereski, Gary McWilliams **Chicago:** James E. Ellis (Mgr.), David sing, Kevin Kelly, Julia Flynn Siler, Lois Therrien **Cleveland:** Za-y Schiller (Mgr.), Maria Mallory, Stephen Phillips **Connecticut:** d Vogel (Mgr.), Lisa Driscoll. **Dallas:** Wendy Zellner (Mgr.), Jim imo. **Denver:** Sandra D. Atchison (Mgr.), William C. Symonds (Sr espondent). **Detroit:** James B. Treece (Mgr.), David Woodruff ston: Mark Ivey (Mgr.). **Los Angeles:** Ronald Grover (Mgr.), y Armstrong (Sr. Correspondent), Kathleen Kerwin, Eric Schine mi: Gail DeGeorge (Mgr.), Antonio N. Fins **Minneapolis-St. Paul:** sell Mitchell (Mgr.). **Philadelphia:** Joseph Weber (Mgr.) **Pitts-gh:** Gregory L. Miles (Mgr.), Michael Schroeder **San Francisco:** n O'C. Hamilton (Mgr.), Richard Brandt, Barbara Buell, Robert Hof, a Shao. **Seattle:** Dori Jones Yang (Mgr.) **Washington:** Stephen ildstrom (Sr. News Editor), Stan Crock (News Editor), Amy Borrus, y Cahan, John Carey, Paula Dwyer, Dean Foust, Susan Garland, ard Gleckman, Dave Griffiths, Douglas A. Harbrecht, Bill Javetski, c Lewyn, Paul Magnusson, Mike McNamee, Seth Payne, Tim rt, Catherine Yang. **Bonn:** John Templeman (Mgr.), Gail Schares ssels: Jonathan Kapstein (Mgr.). **Hong Kong:** Dinah Lee (Mgr.), Engardio. **London:** Richard A. Melcher (Mgr.), Mark Maremont ico City: Stephen Baker (Mgr.) **Moscow:** Rose Brady (Mgr.). s: Stewart Toy (Mgr.), Jonathan B. Levine, Blanca Riemer **Rome:** Rossant (Mgr.). **Sao Paulo:** Jeffrey Ryser (Mgr.) **Tokyo:** Robert (Mgr.), Neil Gross, Ted Holden
TORIAL SERVICES: Broadcasting: Ray Hoffman **Business ager:** Barbara Boynton **Information Services:** Jude Hayes ctor), Judi Crowe (Asst. editor), Dana Gordon, Fred Katzenberg, e Khatami, Rex Long. **Public Relations:** Christine Summerson, phine Coppola. **Reprint Permission:** Vivian J K. Betton tems: Ron Brayer, Courtenay Eddy

LISHER: John W. Patten
VP, DIRECTOR OF MARKETING: John J. Bedell
VP, OPERATIONS: Gary B Hopkins
INTERNATIONAL: Gerd Hinske, Earl S Moore, Jr
PLANNING & DEVELOPMENT: Barbara Munder
CIRCULATION: Kitty Carroll Williams
SALES: Constance E. Bennett (San Francisco), John R. Camp-(Stamford), Charles W. Hennessy (Philadelphia), Irwin Kornfeld York), Thomas O. McDonough (Chicago)
CTOR, ADVERTISING BUSINESS: Linda F. Carvalho
CTOR, PRODUCTION: Mario J. Talluto

Readers Report

START THE TAX HIKE WITHOUT ME

Regarding your article "The right way to raise taxes" (Editorials, July 9), you have advocated taxing Social Security retirement benefits. You consider them entitlements that go automatically to anyone who meets qualifications.

I am entitled to Social Security payments because I earned them. I'm getting my money back. My total payments to Social Security "insurance" were $27,547. My employers matched that, and they considered it part of my compensation. Simple interest at 6% raises the total at retirement to $82,330. When I retired at 63, I started to receive $686 a month. Investing the $82,330 at 8.3% would have given me the same monthly benefit and left the principal for my children. We have paid tax on our Social Security benefit and now pay tax on half the monthly check. What more do you want?

Lawrence A. Zeis
Durham, N. H.

Congratulations on your editorial. You are half right when you say "Congress must now show the same kind of political courage and cut spending." When Congress cuts spending and waste, we will not need a tax increase.

David M. Schmid
Chairman
Technical Development Co.
Montgomeryville, Pa.

It is difficult for me to understand how a business magazine could advocate giving more tax money to our bunch of fiscally irresponsible representatives in Washington. With the problem of never-ending incumbency, the only way to control these people is to limit their funds, like you would handle children.

Arthur K. Olsen
Salt Lake City

My wife and I were able at age 62 to purchase a used motor home and hope to be able to travel around our country in retirement. Now you are advocating that we should bear the largest burden to finance the national debt. If we travel 10,000 miles in the motor home at 7 miles per gallon and 12,000 miles in an auto at 20 miles per gallon, you are asking us to pay an extra $1,014 in gasoline taxes each year.

This gasoline tax and a larger tax on Social Security are the only two tax increases that you list. Do you propose that most of the increased burden come from the retired?

Russell E. Miller
Lansing, Mich.

Bravo! Refreshing insights into the budget deficit. Taxing spending, not income, is the only choice the U. S. has to get maximum results in cutting consumption while paring the deficit.

William G. Stoner
Bitburg, West Germany

HOW RED TAPE IS CHOKING PENSION PLANS

I agree that pension plans are "going the way of the dodo." Your article "In search of the vanishing nest egg" (Labor, July 30) is only partially correct in stating that the decline stems from the growing use of such alternative plans as the 401(k). There are many reasons for this trend toward alternative plans. However, I believe that the principal reason that new companies will not even consider adopting a pension plan and that older companies are replacing their pension plans with 401(k) programs is the overwhelming burden of government regulations.

Louis Kravitz
Encino, Calif.

Your article failed to mention one word on the real causes of why small employers are not establishing pension plans for their employees. The central reasons are the burdensome federal laws and regulations that small employers are faced with in running a pension plan, in addition to the associated costs.

In the 1980s alone, there have been several major pieces of legislation that significantly changed pension rules about every two years. In addition, the Treasury and Labor Depts. devised complex and intricate "hoops" that a pension

BUSINESS WEEK
AUGUST 20, 1990 ***3174
ISSN 0007-7135

Published weekly except for one issue in January, by McGraw-Hill, Inc. Founder James H. McGraw (1860-1948). Executive, Editorial, Circulation, and Advertising Offices: McGraw-Hill Building, 1221 Avenue of the Americas, New York, N.Y. 10020. Telephone (212) 512-2000. Domestic Telex 127960, International Telex 232365; Cable, McGraw-Hill New York, TWX 710-581-4879. U.S. subscription rate $39.95 per year; 2 years, $69.95; 3 years, $94.95. Single copies, $2. Write for rates in other countries. Business Week Subscriber Services 1-800-635-1200.

European Circulation Center, McGraw-Hill House, Maidenhead, Berks, England. Telephone (0628) 23431. Telex 848640.
Postmaster: Please send address changes to BUSINESS WEEK, P.O. Box 430, Hightstown, N.J. 08520. Second-class postage paid at New York, N.Y., and at additional mailing offices. Postage paid at Montreal, P.Q. Registration Number 9010. Copyright © 1990 by McGraw-Hill Inc. All rights reserved. Title registered in U.S. Patent Office.

Officers of McGraw-Hill, Inc., Joseph L. Dionne, Chairman, President and Chief Executive Officer; Robert N. Landes, Executive Vice President, General Counsel, and Secretary; Harold W. McGraw, III, Executive Vice President; Frank D. Penglase, Senior Vice President, Treasury Operations.

PHOTOCOPY PERMISSION: Where necessary, permission is granted by the copyright owner for those registered with the Copyright Clearance Center (CCC), 27 Congress St., Salem, Mass. 01970, to photocopy any article herein for the flat fee of $1.50 per copy of each article. Send payment to the CCC. Copying for other than personal or internal reference use without express permission of McGraw-Hill is prohibited. Address requests for customized bulk reprints to Business Week Reprints, P. O. Box 457, Hightstown, N. J. 08520, or call 609-426-5494. ISSN 0007-7135/90/$2.00

For Over Fifty Years, On
Designed Motorcars Th
Introducing The Next On

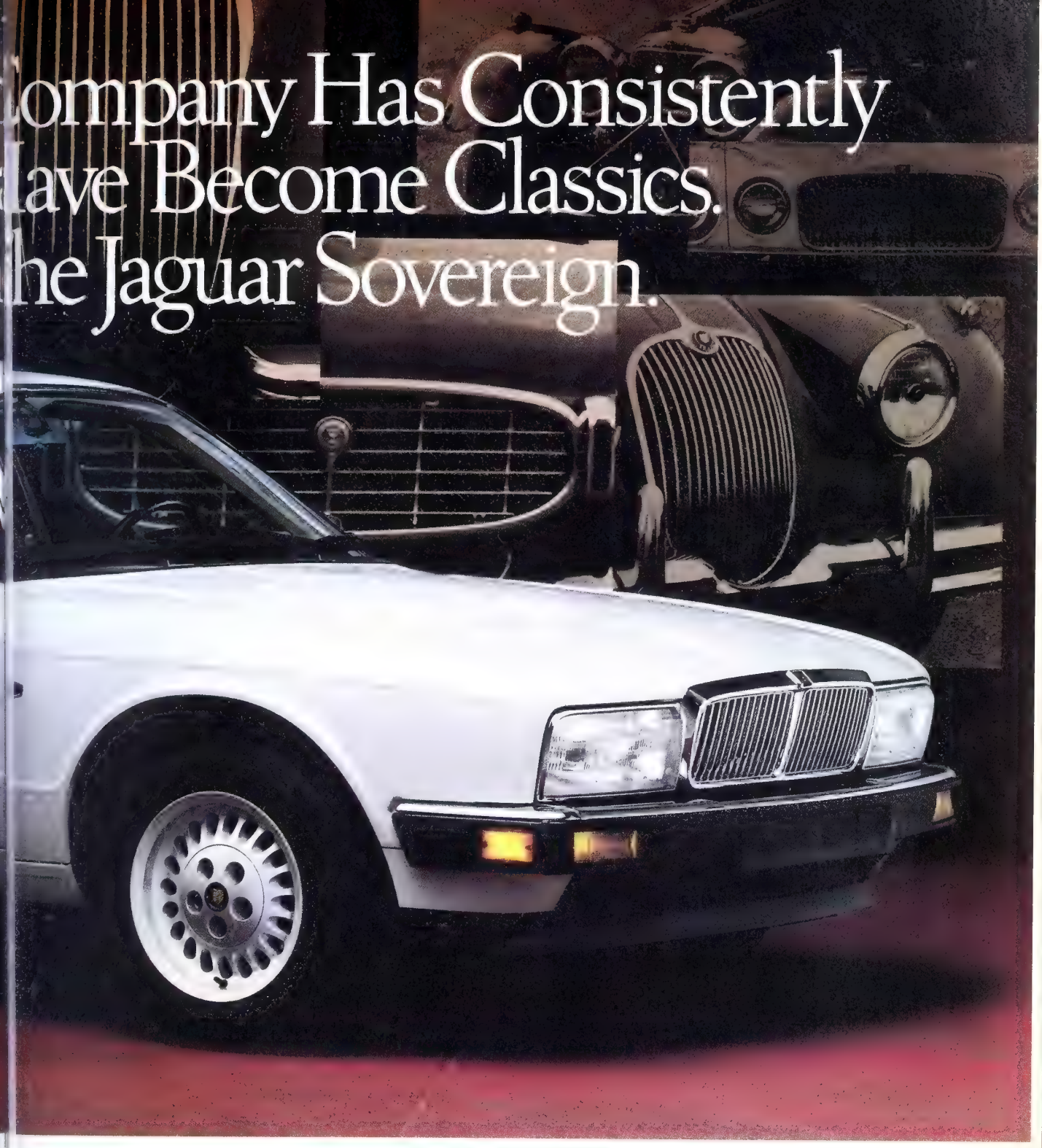
Over the last half century, Jaguar has introduced some truly remarkable automobiles. Indeed, legendary Jaguars such as the XK120 and XKE helped to define the term "classic motorcar." For 1990, we would like to introduce you to another remarkable Jaguar: the Sovereign.

With its dramatic styling, aerodynamic headlights and elegant, regal grille, the Sovereign is destined to yet another Jaguar classic.

But it takes more than style to create a clas Jaguar. It also takes substance. Which is why ev Sovereign is powered by a 223-horsepower, four-li 24-valve, six-cylinder engine, mated to an electronic controlled, four-speed automatic transmission that

A BLENDING OF ART AN

ompany Has Consistently
ave Become Classics.
he Jaguar Sovereign.



s "sport" and "normal" shift capabilities. The Sover-
n is also equipped with anti-lock disc brakes,
omatic ride leveling and Jaguar's renowned four-
el independent suspension.

Of course, no Jaguar, especially one of such classic
portions, would be complete without a host of luxu-
s amenities. The Sovereign cabin is fitted with hand-polished, inlaid burl walnut, supple leather, an electrically operated sunroof and the convenience of computerized climate control.

We invite you to test drive the 1990 Jaguar Sovereign. For your nearest dealer, call 1-800-4-JAGUAR. Discover the joy of driving the car that is destined to be the next great Jaguar classic.

A C H I N E

J A G U A R

plan must jump through to retain its tax-qualified status.

Perhaps if Congress provided more incentives to encourage rather than discourage small-business owners to start employee-retirement plans, we would not have to face what is going to be the major problem in the next century—that is, millions of retired workers with a substandard existence.

John P. McCann
Vice-President
Employee Benefits
La Crosse Trust Co.
La Crosse, Wis.

ABOUT THAT DEFICIT, MR. ROBERTS . . .

Mr. Paul Craig Roberts tries to support a theory that Federal deficits do not matter ('Who's doing voodoo economics now?" Economic Viewpoint, July 30). Currently, 14% of government revenues are consumed in interest on the national debt. At what point does Mr. Roberts think the percent of revenues consumed by interest on national debt would make the deficit a problem? At 25%, 50%, 75%?

Robert O. Evans
Bakersfield, Calif.

I must praise Mr. Roberts for his honest criticism of the President's sellout for higher taxes. He's right.

Higher taxes will do nothing but hurt us in the long run. I must also, however, ask him to take one more bold step and offer a solution to a balanced budget. Taking the stand that the budget deficit is a "nonproblem" is just as meek as the President's retreat for higher taxes.

Actually, the solution seems pretty easy; it's just hard to digest. Why not call a random selection of the top CEOs in the country from all sizes and types of industries and have them draft a solution? These are people who understand the needs of America and have the stomach to deal with the problem.

Dino J. D'Auria II
San Diego

NAVISTAR HAS 'OUT-JAPANESED THE JAPANESE'

"Navistar labors up another hill" (The Corporation, July 30) fails to give Navistar credit for meeting the challenge of global competitiveness. While Freightliner, GM Heavy Truck, and Mack have sought foreign capital and expertise to survive, Navistar has worked with customers, suppliers, and unions to increase its competitiveness.

In a cyclical and sometimes troubled industry, Navistar, under CEO James Cotting and President Neil Springer, has out-Japanesed the Japanese. And I put my money on Navistar to continue to succeed.

As a major user of trucks and engines, U-Haul has voted for Navistar to the tune of over 10,500 trucks and 30,000 engines in the past 30 months. We have found their product to be competitive in price and excellent in performance.

E. J. "Joe" Shoen
Chairman
U-Haul International Inc.
Phoenix

CORRECTIONS & CLARIFICATIONS

In "Vivigen: High-tech testing with old-fashioned service" (The Corporation, July 23) we misstated Vivigen Inc.'s 1989 results. It earned $1.6 million on sales of $9 million last year.

IT'S NO PLEASURE DRIVE FOR CAR DEALERS

I doubt that the root of the problem of declining auto sales lies, as Lawrence Kudlow suggests ("Detroit's biggest problem may be simple sticker shock," Economic Trends, July 9), at the retail level—especially concerning the high costs of new vehicles. Rather, the real problem lies in the costs of "Detroit's incentives largesse"—rebates and other incentives. These are built into the retail price of new vehicles and contributes to the "sticker shock" that stalls auto and truck sales.

As far as dealers having "taken advantage of the huge production and inventory declines," I would suggest that the reduction in dealers' unsold inventories is a decision based on the high costs of maintaining vehicle inventories. We have seen the manufacturing sector rush to "just-in-time" inventory management. Perhaps it's time for retailers to adopt portions of this same theory to reduce their costs and enhance profits.

Jeff Bennett
General Manager
Bennett Chevrolet
Marion, Ohio

Lawrence Kudlow suggests that new-car sales are in the doldrums because dealers have boosted gross margins and thus contributed to the consumer's sticker shock. We suggest that the chief economist for so prestigious a firm as Bear Stearns check the facts before voicing his "suspicions."

First, by any reasonable measure, new-car prices have fallen in real terms. The average new-vehicle selling price ($15,700) is up only 3% over the past year. And even this less-than-inflation increase is grossly overstated because it does not account for quality changes or the upscale mix of cars being bought. Luxury cars are the strongest segment of the market, up 5% through May, in an overall market decline of 4%.

Second, the statement that dealer gross margins have contributed to escalating prices is simply ludicrous. Last year, dealers lost an average of $249 on every new unit sold. Although many dealership expenses were up, such as inventory holding costs, the primary reason for the loss was the reduced gross profit margin, which fell to a record low of 7.8% on retail sales. Through the first four months of this year, car dealers have cut their average loss to $247 per new unit retailed. This two-buck improvement is the result of expense control, because gross margins hit a new low of 7.6%.

We agree with Mr. Kudlow that manufacturers should improve their pricing practices with dealers. But margins should be increased, not decreased. Dealers can not be expected to continue to provide professional selling services without some hope for a profit.

Tom We
Chief Econom
National Automobile Dealers Ass.
McLean, V.

WHY THE BABY BELLS ARE APPLYING FOR PASSPORTS

"The Baby Bells take their show on the road" (Information Processin, June 25) provides an interesting windo into the international forays of some America's (indeed, the world's) large companies. But it fails to address the strategy of the regional holding companies to use their overseas ventures to prepare for the day when they will be free to provide cable television, information, and other currently prohibited services in the U. S.

In addition, these investments, while requiring large up-front capital expenditures, ultimately will result in foreign monies flowing back to the benefit of the Bell companies, their subscribers and U. S. citizens.

Leslie A. Tayl
Bethesda, M

Editor's note: Leslie Taylor is the author of *The RHCs: International Ventures, Strategies and Opportunities.*

Letters to the Editor should be sent to Reader Report, Business Week, 1221 Avenue of the Americas, New York, N. Y. 10020. Fax: (212) 512-4460. Telex: 12-7960, Intl. 4998204. All letters must include an address and daytime and evening telephone numbers. We reserve the right to edit letters for clarity and space.

Two world records for size.

LOWE LURZER

The world's largest flower and the world's largest glass tube. Both measure over 3 feet in diameter.

There's no other flower in the world that measures up to the Rafflesia arnoldii when it comes to sheer size.

_____ This parasitic plant lives on the roots of a wild vine in the jungle of Sumatra. Its red-speckled blossom beats all records: it measures over 3 feet in diameter and tips the scales at over 15 lbs.

_____ Schott special glass products also hold some world records. For example, the largest glass tube ever made.

_____ This particular giant has a 39-inch diameter. And it's just one of Schott's 2,500 standard elements for constructing chemical plants. Made of borosilicate glass, it resists corrosion and can withstand thermal shock – two properties that make it ideal for use in the chemical and pharmaceutical industries.

_____ The world's largest glass tube, available from Schott Process Systems Inc., is just one example of how Schott's innovative development responds to specific needs. In today's world, special glass helps keep technology advancing.

_____ Schott worldwide: 50,000 products, 50 production facilities, represented in more than 100 countries, with over $1 billion in sales.

_____ Schott in North America: 11 companies employing more than 1,800 people.

_____ Would you like to know more about our special glass? Write to: Schott Corporation, Department B 31, 3 Odell Plaza, Yonkers, NY 10701.

SCHOTT

Nobody knows more about glass.

WORKING FOR THE JAPANESE: INSIDE MAZDA'S AMERICAN AUTO PLANT
By Joseph J. Fucini and Suzy Fucini
Free Press • 258pp • $19.95

JUMP START: JAPAN COMES TO THE HEARTLAND
By David Gelsanliter
Farrar, Straus Giroux Inc. • 262pp • $19.95

JAPAN COMES TO TOWN, REALITY ARRIVES LATER

In the 1980s, Japanese carmakers opened seven plants in America. U. S. carmakers closed seven. This industrial shift has affected not only the auto industry, but also the U. S. labor movement, individual workers, communities, even America's sense of itself.

In *Working for the Japanese*, authors Joseph J. Fucini and Suzy Fucini take the reader inside the Mazda Motor Corp. facility in Flat Rock, Mich. The Fucinis, authors of two previous books about entrepreneurs, offer a balanced view. They show, for example, how racism has waxed and waned on both sides. But inevitably, they describe a disgruntled work force. It's not that Mazda is vastly worse to work for than, say, General Motors Corp. It's just that Mazda initially promised workers so much more.

As Mazda interviewed and trained employees before the plant's late 1987 opening, it raised expectations of an industrial paradise where management would respect and care for workers. Unlike carmakers in nearby Detroit, Mazda said, it wanted brains as well as brawn.

That rhetoric evaporated in 1988's summer heat wave. Temperatures in the plant, which had no air conditioning, climbed past 100 degrees, just as the factory added a second shift and sent production from fewer than 10,000 cars in May to 22,000 in September—without a commensurate increase in staff.

Mazda's Japanese management dragged its heels when workers pleaded for more fans and declined requests to allow them to drink water on the line. They also publicly chided those who took vacations during the critical startup phase. Workers felt betrayed by union officials, who soft-pedaled the problems. Mazda's was the only wholly owned Japanese auto plant in the U. S. represented by the United Auto Workers. The union, to facilitate organizing drives at other Japanese plants, was eager to prove it could cooperate with management.

Even safety was compromised. Pressures to meet output quotas at the understaffed factory led to violations of the company's own safety codes. Workdays lost to injuries exceeded the average for Michigan car plants. Originally, Mazda's promise of a "wellness" program had made it appear more concerned about health than U. S. rivals.

Many of the plant's problems can be traced to cultural differences between the plant's American workers and its Japanese bosses. For example, Mazda managers told workers that wearing Mazda's baseball cap was voluntary—but when many workers decided not to, the managers were offended. The group-oriented Japanese thought workers should "voluntarily" want to identify with the company, but the point was lost on the Americans. That and more serious conflicts eventually led to the election of local union officials less cozy with management, and to the departure of the original top American managers. The Fucinis conclude that achieving a "third culture" that mixes the best of Japanese and American values is far tougher than Mazda had hoped.

Based on more than 150 interviews, *Working for the Japanese* provides a richly detailed view of a Japanese plant as seen from the line. Readers share the workers' search for decent jobs, pride in making the cut after the long application process, and gradual disillusionment on the job. Most of the plant's woes have been reported before—but not with such power.

Still, *Working for the Japanese* too often fails to place events in the broader context of the international auto industry; it never discusses, for example, how Mazda is doing in the market. David Gelsanliter's *Jump Start* sets out to deliver the missing context by assessing the impact of the Honda, Nissan, and Toyota plants in America. But the anecdotes he collects tell little about the state of the industry, Japanese or American.

Gelsanliter, a former newspaper reporter, is at his best covering local politics. He details how Toyota grabbed all the incentives it could from the state of Kentucky, bringing on a public relations disaster that resulted in an unexpected payroll and profits tax slapped on it by the county. He then shows how the auto giant quietly built ties with the mayor of Georgetown, site of the plant, to limit the fallout. He closely follows the personalities and issues that shaped the UAW's failed attempt to unionize Nissan's plant in Smyrna, Tenn.

But Gelsanliter is better at telling a tale than at digging into one. *Jump Start* relates how, when safety became an issue in the Nissan union vote, Nissan chose to pay a fine rather than comply with state law and release its injury records. But we never learn whether the Smyrna plant was more dangerous than other plants or than management claimed. It's just one of several unsatisfying segments in a book that skips from plant to plant, issue to issue.

Jump Start does a fair job of showing how U. S. communities are reacting to Japanese auto plants in their midst. By comparison, *Working for the Japanese* triumphs as an eye-opening, sweat-stained account of what goes on behind the plant doors.

BY JAMES B. TREECE

Detroit Bureau Manager Treece studied and worked in Japan for 10 years.

WESTIN
HOTELS & RESORTS

Caring·Comfortable·Civilized.

In praise of simple comforts.

On the road, comfort is not a luxury. It is a necessity. One that demands the most careful planning and meticulous attention to detail. Acknowledging these facts, the people of Westin, worldwide, take pride... not merely to satisfy, but to anticipate each guest's individual needs. And guests rest assured of finding that special atmosphere which is at once caring, comfortable, civilized.

Drena Alexander,
Director of Housekeeping
The Westin Galleria and
The Westin Oaks, Houston

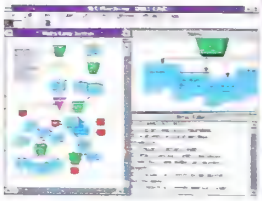
ACAPULCO • ATLANTA • BOSTON • CALGARY • CANCUN • CHICAGO
HICAGO (O'HARE) • CINCINNATI • DALLAS • DENVER • DETROIT • EDMONTON
EL PASO • FORT LAUDERDALE • GUADALAJARA • GUATEMALA CITY • HILTON
AD ISLAND • HONG KONG • HOUSTON • INDIANAPOLIS • IXTAPA • KANSAS
CITY • KAUAI • KYOTO • LOS ANGELES • MANILA • MANZANILLO • MAUI
MAZATLAN • MEXICO CITY • MONTERREY • NAPLES, FL • NEW ORLEANS
W YORK • ORANGE COUNTY • ORLANDO • OTTAWA • PHOENIX • PITTSBURGH
PUERTO VALLARTA • PUSAN • RANCHO MIRAGE (PALM SPRINGS AREA)
ILLO • SAN FRANCISCO • SAN FRANCISCO AIRPORT • SAN SALVADOR • SEATTLE
SEOUL • SHANGHAI • SINGAPORE • TOKYO • TORONTO • TUCSON • TULSA
VAIL • VANCOUVER • WASHINGTON, D.C. • WINNIPEG

rn points toward exciting Westin vacations by joining Westin Premier, our frequent guest program. United Airlines Mileage Plus, Air Canada Aeroplan, Northwest Airlines WORLDPERKS, and USAir Frequent Traveler members earn miles at participating Westin Hotels & Resorts.

Call your travel consultant or 800-228-3000.

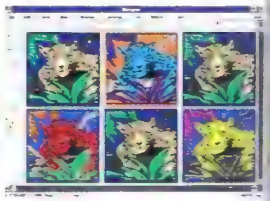
We Wrote The Book
Appreciate Microsoft

Receive up to $450 in rebates on software with every Zenith Data Systems hard drive 286- or Intel386™-based desktop PC.



ABC Flowcharter™ for easier flowcharting than ever before

ConvertIt!™ for simple conversion of applications from HyperCard® to ToolBook®



Micrografx® Designer™ for easy artwork creation from imported images.

Superbase® 4. Relational applications database. Powerful, yet easy to learn and use.

ZENITH DATA SYSTEMS INNOVATES AGAIN™

Now when you buy any Zenith Data Systems hard drive 286 or 386 desktop PC, you get Microsoft® Windows™ v.3.0 preinstalled plus a free Microsoft Mouse. Giving your Windows applications a common look, so you can pick up new applications easily. Almost seamlessly.

And, you get something more.

Manufacturers' rebates of up to $450 on today's most advanced software designed for Windows v.3.0. Everything from Aldus® PageMaker™ to Microsoft Word™ for Windows.

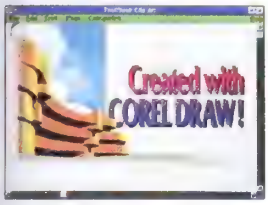
Purchase a qualifying Zenith Data Systems hard drive desktop PC today. And receive up to $450 in rebates. But hurry, this offer is good for purchases made through **September 28, 1990.** For more information and the name of your nearest Medallion Reseller, call **1-800-523-9393.**

)n How To Fully
Vindows Version 3.0.

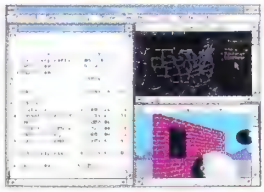
Aldus® PageMaker® for design and production of professional-quality documents.

Ami® Professional for total "word publishing" with text and page layout tools.

CA-Cricket Presents™ for creating sensational presentation graphics.



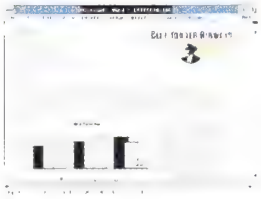
Corel® DRAW! The ideal illustration program for novices or professionals.



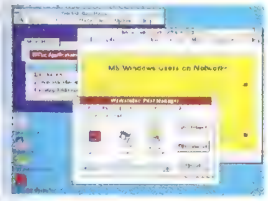
DynaComm® An ideal communications solution — in synchronous or asynchronous versions.

Legacy™ for advanced word processing and "WYSIWYG" page layout.

Microsoft® Excel™ for powerful spreadsheets, with spectacular charting.



Microsoft Word for Windows™ for quickly combining text, graphics and data.



Windows Workstation.™ Networking with Windows made simple.

The Microsoft Mouse. The industry standard for fingertip control.

The Zenith Data Systems Sphere

The universal symbol of simplicity, the sphere perfectly epresents The Seamless Solution℠ from Zenith Data Systems.

ZENITH
data systems

Groupe Bull

one rebate per coupon. Void where prohibited. Other restrictions apply. See rebate book for full details available at participating locations. ot available through Zenith Data Systems Education Resellers, or on software sold at education pricing. Not available in conjunction with any other Where indicated, product and company names are trademarks of their respective holders. Graphics simulate Microsoft® Windows Version 3.0, a product rosoft Corporation. © 1990 Zenith Data Systems Corporation

WHY OUR PARACHUTES ARE IN TATTERS

BY ROBERT KUTTNER

Don't expect any quick rescue work by the government as the economy sinks. The Fed is hamstrung, consumers are borrowed out, the banks are shell-shocked, and Tokyo and Bonn aren't exactly offering free toasters to borrowers

ROBERT KUTTNER IS ECONOMICS CORRESPONDENT FOR *THE NEW REPUBLIC* AND AUTHOR OF *THE LIFE OF THE PARTY*

The Mideast crisis only compounds the fact that there may not be any good economic solution to the current budget impasse or the looming recession. The President and Congress have simply waited too long to strike a budget deal. Two or three years ago—when the recovery was still robust, the U. S. had less foreign debt, the savings and loan debacle had not reached crisis proportions, and oil was plentiful and cheap—a "soft landing" based on tighter budget discipline and looser monetary policy just might have been possible. But today, the economy is teetering on the edge of a recession likely to be more severe than usual because of structural factors that severely limit policy options. To wit:

■ **Dependence on foreign capital.** Germany and Japan hold some $350 billion worth of Treasury debt. The dollar is now at a postwar low against the mark. Normally, if Congress had to cut the deficit in a softening economy, the Federal Reserve would ease credit to offset the effects of a fiscal tightening. But a cheapening dollar scares away foreign investors. Thanks to the foreign debt and the new oil shock, the Fed may well have to run a fairly tight money policy even as the deficit is reduced—which will only deepen the impending recession. That's the price we pay for a decade of budgetary excess. The days of cheap foreign borrowing are gone, because Japan is worried about its monetary stability and is running a tighter money policy, while Germany has Eastern Europe to finance. Even Latin America, a source of capital outflow during the 1980s, is a net borrower again.

■ **Soft consumer demand.** In the past decade, income inequality worsened and real wages stagnated. Only the top one-fifth of American families enjoyed real income gains. In recent years, working families stayed afloat by going deeper into debt and by putting a second wage earner into the economy. But consumer debt is now at its limits. Female labor-market participation rates now nearly equal male ones, so there are few homemakers left to send out to work. In the meantime, labor income has borne an increasing share of the tax load through higher payroll taxes, while income from capital has enjoyed tax cuts. As declining purchases of consumer durables and stagnant home sales suggest, the average working consumer is strung out, borrowed out, and has nobody left to send out into the work force. As the unemployment rate creeps upward and wage gains lag behind inflation, purchasing power will erode further.

■ **A shaky financial sector.** The ballooning S&L bailout is only part of the story. Big money-center banks also have increasingly shaky balance sheets. Ba stocks are depressed and show no sig of rebounding. As their traditional lin of business dried up in the late 197 and 1980s, commercial banks moved fir into Third World lending, then into ju bonds and real estate. Each in tu proved disastrous. Federal regulato looking to broker shotgun weddings insolvent banks cannot find partners, b cause even the biggest money-cent and superregional banks are too sha to absorb them.

The weak financial economy spi over into the real economy in seve distinct ways. Banks under fire from e aminers think twice about making sma business and real estate loans th would be good risks in normal time That in turn depresses commercial act ity and the value of real estate—a contributes to a further erosion of ba balance sheets. In a structural recessio it's not even clear that easing intere rates would help very much, since d mand for credit that meets prudent len ing standards is so soft.

Loosening money in these circu stances has been likened to "pushing a string"—it might prove inflationa without constructively stimulating t economy. Ordinarily, bank balan sheets improve during recoveries a worsen in recessions. This time, as in t 1920s, a period of recovery coincid with—and was partly built on—financi excess.

There is no good time to have a rece sion, but this is a particularly bad tim The one coming will reflect deep wea nesses in the economy that will be ha to fix. The slow-growth recovery of t 1980s was made possible by a combin tion of deficit spending and cheap fo eign borrowing, not by real improv ments in U. S. competitiveness productivity. As that recovery final succumbs to overdue fiscal reform, slo productivity growth, declining corpora earnings, weak consumer spending, a high real interest rates, there is simp no good mix of policy options. Recessi will only worsen the condition of ban and increase the weight of past debt yet the government dares not turn new deficit spending or cheaper mon as a cure.

Economic science has never look more dismal. It recalls Harry Truman plea for a one-armed economist—w could not warn that on the one hand policy would produce benefits while the other hand it would incur costs. Y the culprit behind the policy paralysis not the inherent trade-offs of econom life. It is the truly dismal legacy of t Reagan years.

"We have 1,900 reasons to rely on UDS modems"

Networking some 1,900 paint and decorating stores nationwide requires bold thinking; the broad geographic spread generates an awesome task for the Sherwin-Williams information network.

Sales, inventory, personnel and other operating data must move between each store and the corporate mainframe on a timely basis. Concurrent on-line credit card verification is another desirable capability.

Sync-Up™ 201/212 modems, by UDS, are the Sherwin-Williams solution.

These devices are tailor-made for Sherwin-Williams' divided communications responsibility — their low-speed (1200 bps) channel can be used for credit card verification, while operating data travel via the modems' higher-speed (2400 bps) circuit.

Versatility, reliability, economy. These are the reasons why Sherwin-Williams chose UDS. If you have similar system needs, follow the Sherwin-Williams example. Contact UDS, 5000 Bradford Drive, Huntsville, AL 35805-1993. Telephone 205/430-8000; FAX 205/430-8926.

—Bob Mulhern,
Manager Systems Integration
Paint Stores Group

SHERWIN WILLIAMS

UDS

MOTOROLA

Created by Dayner/Hall, Inc., Winter Park, Florida

© Visa U.S.A. Inc. 1989

If this is how your customers are paying,

Is your business paying too high a discount rate for the "privilege" of accepting American Express? Now the Visa Profit Improvement Calculator can help you quickly determine how much more profitable your business could be while providing you with simple steps to help you turn a bigger profit.

Call the toll-free number above to receive your free copy of the Profit Improvement Calculator. It will show you how much it's really costing you to accept American Express. And along with the calculator, we'll include some no-nonsense strategies for improving your overall profit.

One obvious strategy is to shift your American Express transactions to more profitable payment options, including Visa. You'll learn how to do this without jeopardizing sales volume. Another strategy is to negotiate a lower discount rate from American Express. We'll

call 800-VISA-511 and we'll show you how to turn a bigger profit.

Profit Improvement Calculator

give you solid facts you can use in these negotiations—facts that make American Express's higher discount rate hard to justify.

For example, did you know American Express has only one-fifth as many cardholders as Visa—and only half as many cardholders with household incomes over $50,000? Or that most American Express cardholders carry a Visa card they could use instead, increasing your profits? Have you calculated the cost of waiting longer for American Express to pay for your sales drafts? Our Profit Improvement Calculator will help you turn these facts to your advantage.

Remember, other merchants—perhaps your competitors—will soon be calculating their new profits. Don't miss your turn. Call Visa at 800-VISA-511.

VISA It's everywhere you want to be.

BY GENE KORETZ

WARNING: AN UP QUARTER IS SOMETIMES A DOWN QUARTER

Could the U. S. economy have entered a recession several months ago? Most economic observers would dismiss the idea out of hand, since a recession is commonly defined as two consecutive quarters of negative growth, and government revisions say the economy expanded at a 1.2% rate last quarter.

Economist Irwin Kellner of Manufacturers Hanover Trust Co. isn't so sure. He notes that five of the eight postwar recessions, as determined by the National Bureau of Economic Research, actually began in a quarter of positive growth. Further, all those initial quarters had growth rates over 1.2%. "Given last quarter's sharp drop in final demand," says Kellner, "there's a good chance that a contraction started last spring."

MORE HOUSEHOLDS ARE TAKING THE BANKRUPTCY ROUTE . . .

Personal bankruptcies are about to soar into the stratosphere, predicts economist Paul Getman of Regional Financial Associates Inc. He estimates that the nonbusiness or personal-bankruptcy rate was running about 2.72 per 1,000 persons in the first quarter of this year and climbing steeply. That's 10% above last year's rate and more than double that of a decade earlier (chart).

The pickup in bankruptcies is particularly worrisome because it comes on top of a broad upswing in such filings. In the 1970s, the rate stayed in a narrower and lower range, declining in expansionary periods and rising during recessions. In the 1980s, by contrast, personal bankruptcies hit new records, even though the decade marked the longest and strongest postwar expansion.

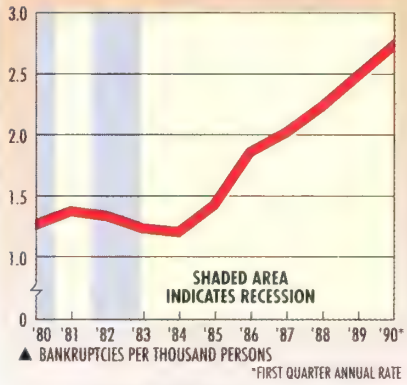
Bankruptcies surged in the early 1980s, says Getman, because of the 1980-1983 recessionary period and federal bankruptcy-reform legislation, which made bankruptcy more attractive by allowing debtors to shield more assets from creditors. But he believes that the sharp spike in bankruptcies since 1984 is more a reflection of the rapid accumulation of household debt in the same period. "Using credit was touted as a mark of success," he says, "and consumers jumped on the debt bandwagon."

From this perspective, it's hardly an accident that the personal-bankruptcy rate took off in the second half of the decade, just as consumer indebtedness as a percent of disposable personal income shot up from about 63% in 1984 to 79% in 1989. As long ago as 1986, notes Getman, half of the respondents to a Federal Reserve Board household survey already had debts exceeding their assets, and "rising debt loads since then have sharply increased the household sector's vulnerability to a downturn."

Up to now, rising bankruptcies have mainly reflected the "rolling" regional recessions that have plagued the economy, such as the Southwest oil slump and the more recent downturn in New England. Getman's analysis indicates a close relationship between local rises in unemployment and personal-bankruptcy filings. Such filings in New England, where joblessness has been on the rise, for example, were up 45% in the 12 months ending in March over the comparable level a year earlier, as compared with a 10% rise for the U. S. as a whole.

With the entire economy facing a possible recession, however, the national bankruptcy rate seems sure to rise more rapidly. Even without an actual downturn, Getman believes the rate will hit 3 per 1,000 persons by yearend. And if a full-fledged contraction develops, he says, "we could be looking at a million personal bankruptcies next year, compared with 500,000 as recently as 1987."

PERSONAL BANKRUPTCIES ARE ROCKETING



DATA: ADMINISTRATIVE OFFICE U.S. DISTRICT COURTS, REGIONAL FINANCIAL ASSOCIATES INC.

. . . AND BUSINESSES ARE BEGINNING TO FOLLOW SUIT

While personal bankruptcies have been increasing at a hefty pace in recent years, business failures have been moving in the opposite direction—until this year. Dun & Bradstreet Corp. reports that business failures, primarily bankruptcies, are up 9.5% so far this year over their year-earlier pace, marking the first increase since 1986. By contrast, such failures fell 13% last year.

Unlike personal bankruptcies, business failures don't always signal financial stress. The failure rate often rises in a newly expanding economy, for example, because of a pickup in business formations inspired by improving business conditions. More failures occur simply because new businesses have a high mortality rate.

In today's aging expansion, however, the pickup in failures seems clearly related to the onset of economic weakness. D&B reports that the Northeast has been particularly hard hit. At last count in April, failures in New England were running at nearly three times their year-earlier pace, and failures in the Mid-Atlantic region were up 64%.

DOES WEALTH INSPIRE ATTENTION TO ELDERLY PARENTS?

Call it the King Lear hypothesis. According to some experts, personal interaction such as the relations between children and their elderly parents is often influenced as much by economic considerations as by love, loyalty, and concern. Indeed, with most of the elderly living alone, some economists theorize that aged parents actually purchase time from their children. In this view, children are apt to be more attentive to parents who can leave them a large inheritance.

Not so, says a recent National Bureau of Economic Research working paper based on Massachusetts survey data. In the study, researchers Axel Boersch-Supan, Jagadeesh Gokhale, Laurence J. Kotlikoff, and John Morris found that demographic variables have the most important effect on the time children spend with their aged parents.

By and large, they report, "older parents, less healthy parents, and noninstitutionalized parents receive more time from their children than younger, healthier, and institutionalized parents. And younger children, healthier children, and female children tend to provide more attention than their older, less healthy, and male counterparts.

As for economic factors, while wealthier children appear to spend less time with their parents than less affluent children, the reseachers found "no evidence that richer parents receive more attention than poorer parents."

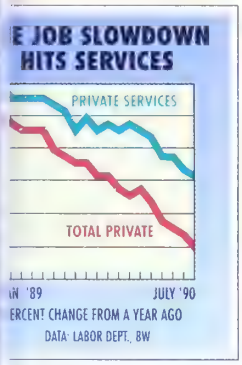
GUST 20, 1990

BY JAMES C. COOPER AND KATHLEEN MADIGAN

HE GUNS OF AUGUST COULD HOOT DOWN THE LOW-FLYING ECONOMY

he outlook for the U. S. economy was none too bright before the Iraqis invaded Kuwait. Now, it's decidedly dimmer. The 1990 oil shock could prove be the trigger for a 1990-91 recession.

ven before the August spike in oil prices, economic wth in the second quarter had nearly ground to a t. The initial readings for the third quarter also look couraging, particularly those from the labor markets. he unemployment rate in July jumped to the highest el in two years. And the slowdown in job growth has n spread to the previously sturdy service sector art). The Labor Dept. also made some eye-opening isions to its productivity numbers: Growth in output hour has been even poorer than originally reported.



Now, throw in higher oil prices. They will sap economic growth still more and fuel inflation to boot (page 26). If Saddam Hussein's appetite for other peoples' oil stops at Kuwait, the best hope for the U. S. economy is a mix of paltry economic growth, more unemployment, and higher inflation.

But an outright recession now looms more ominously. h the economy already weak, the contractionary ef- t of costlier oil weighs far more heavily on the out- k than does its inflationary impact. Current conditions just the opposite of what they were during the oil ck of 1973, when economic growth was strong and netary policy was loose—a combination that accom- dated the inflationary effects.

he main problem: The already fragile consumer sec- will take the biggest hit. Higher energy outlays will ve shoppers with less cash for other items at a time en jobs and incomes are growing more slowly.

onsumers seem increasingly cautious about taking new debt. Installment credit rose only $463 million in ne, to $724.9 billion, continuing the recent trend of aller monthly gains. Higher oil prices are one more n of the screw for consumers—and the expansion.

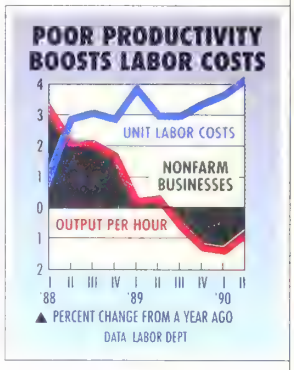
RAQ'S IRECT IT AT THE AS PUMP

To be sure, the price indexes will turn ugly in coming months. Higher oil prices are already hitting home. However, the core rate of inflation—a better gauge of lerlying price pressures because it omits the volatile ergy and food sectors—should look more encouraging. n fact, once the impact of more expensive energy runs its course, the inflation outlook for 1991 should improve. That's partly because of developing slack in the labor markets, which will ease pressure on wage growth. At the same time, a weak economy and international competition will limit businesses' ability to raise prices.

In addition, the Labor Dept.'s latest report on productivity shows that there is less inflationary pressure in the economy than previously thought. The new numbers, revised back to 1987, show that wages and benefits in the nonfarm sector have risen only 3.3% during the past year. The old data put the pace in excess of 5%.

But at the same time, the growth of nonfarm productivity, measured as output per hour worked, was also refigured to be much lower. Although productivity managed a 1.6% gain in the second quarter, that followed a 1.9% drop in the first quarter, and it has fallen 0.8% during the past year. The government's old numbers said productivity was growing by 0.7% over the year.

Without productivity gains to offset rising compensation, the cost of producing a unit of output rose 4.2% during the past year (chart). But according to the new data, unit-labor costs have been rising at a far more moderate pace than the old numbers showed. That means the floor under the inflation rate may well be a bit lower than indicated earlier.



In addition, businesses are finding it increasingly difficult to pass along those cost increases in a weak economy. The upshot is likely to be further erosion of profits and even more layoffs in the months ahead. The 0.8% drop in productivity during the past year reflected a meager 0.4% rise in output that was offset by a 1.2% increase in hours worked. That imbalance suggests that job growth will slow even further in the second half.

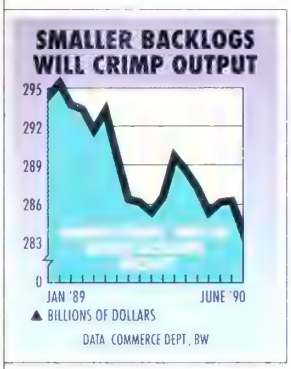
JOBS ARE GETTING HARDER TO FIND

The July employment report showed that job growth is already disturbingly weak. Nonfarm payrolls fell 219,000 last month, to 110.7 million workers. A loss of 175,000 Census Bureau jobs accounted for the bulk of the drop, but even so, last month's decline was the worst in nearly seven years. Growing slackness in the labor markets was also evident in the sharp rise in the unemployment rate. It rose to 5.5% in July, up from 5.2% in June. That was the largest one-month increase in more than a year.

The weakness in hiring is widespread. Manufacturers,

in response to weak demand, have been laying off workers since the spring of 1989. Some 7,000 factory workers got pink slips last month, bringing the total number of job losses since March, 1989, to 327,000.

Now, service companies are joining the hiring slowdown. That's not surprising, since manufacturers buy about 25% of the service sector's output, according to the National Association of Purchasing Management. So, as the goods-producing side of the economy suffers, demand is falling in the wholesale, retail, transportation, and business-services sectors.



In July, private service industries added just 14,000 new workers. Over the past 12 months, hiring of private service workers has grown by 2.6%, off from its 3.6% pace of a year ago. Exclude the booming health care sector, and service jobs actually declined by 11,000 in July. Service hiring is up just 1.9% in the past 12 months—the slowest yearly pace since the economy was recovering from the 1981-82 recession.

In light of the Labor Dept.'s revisions of productivity and compensation, the July report on wage growth looks suspect. The numbers show that the average nonfarm wage rose 0.6% in the month, to $10.09 per hour, led by large pay hikes for finance and service jobs. Over the year, nonfarm pay has risen by 4.1%, the same yearly gain as in July, 1989.

However, the Labor Dept. is set to rewrite history yet again with the release of the August employment report on Sept. 7. Given the downward changes in the quarterly numbers on gross national product, productivity, and compensation, it's a sure bet that the monthly data on payroll jobs and wages will be revised lower, too.

With the risk of recession on the rise, wages are sure to grow at a slower pace as workers become more concerned about keeping their jobs than about pay raises. Certainly, the drop in demand for manufactured goods suggests that will be the case in the factory sector.

FACTORIES ARE BACK ON THE SICK LIST

In fact, the industrial sector, which showed some life this spring, seems poised for a relapse. In June, new factory orders fell 1.5%, to $237.4 billion. This dragged down the level of unfilled orders by 0.5%, to $517.7 billion. The order backlog is still 5.3% above last year's level, but all of the gain is in aircraft. Excluding planes, unfilled orders fell 0.8% in June, to $283.9 billion—3.2% below a year ago (chart).

Faced with sagging demand, manufacturers are cutting hours as well as payrolls. The factory workweek fell to 40.9 hours in July from 41 in June. The workweek would have been even shorter without overtime in the auto industry, where carmakers are boosting production now in case of a strike in September. However, the June declines in the workweek and in jobs suggest that industrial production was little changed last month.

Holding output steady guards against an excessive buildup of unsold goods. Factory inventories fell in June by 0.5%, to $370.5 billion. All of the paring was in materials and supplies, suggesting that manufacturers are not planning to boost output by much in the coming months.

The drawdown of factory stockpiles in June means that the buildup of business inventories—the major source of strength in the second-quarter gross national product—will be revised lower when the Commerce Dept. recalculates the quarter's GNP later this month.

So last quarter's economic growth may end up even weaker than the 1.2% gain reported earlier. And the labor markets suggest rough going in the second half. In the past, it has often taken some kind of uncontrollable shock to turn a fragile expansion into a recession. Saddam Hussein may have short-circuited this one.

THE WEEK AHEAD

RETAIL SALES

Tuesday, Aug. 14, 8:30 a.m.
Retail sales probably increased a slight 0.2% in July, according to a survey of economists done by MMS International, a division of McGraw-Hill Inc. A fall in new-car sales was likely offset by gains at other retailers. In June, sales rose 0.5%. The small gain expected for July indicates that consumer spending started the second half on very weak footing.

BUSINESS INVENTORIES

Wednesday, Aug. 15, 10 a.m.
Business inventories likely fell by 0.3% in June after rising 0.4% in May. Manufacturers have already reported a 0.5% decline in their stockpiles for June. Business sales probably rose 0.5% in June after a strong 0.9% gain in May.

CONSUMER PRICE INDEX

Thursday, Aug. 16, 8:30 a.m.
Consumer prices probably advanced by a modest 0.3% in July. In June, prices increased 0.5%.

HOUSING STARTS

Thursday, Aug. 16, 8:30 a.m.
Housing starts likely were little changed in July from their annual rate of 1.2 million in June.

INDUSTRIAL PRODUCTION

Thursday, Aug. 16, 9:15 a.m.
The MMS consensus calls for a 0.1% increase in industrial output for July. That follows two strong gains of 0.6% in May and 0.5% in June. The industrial sector may be weakening again.

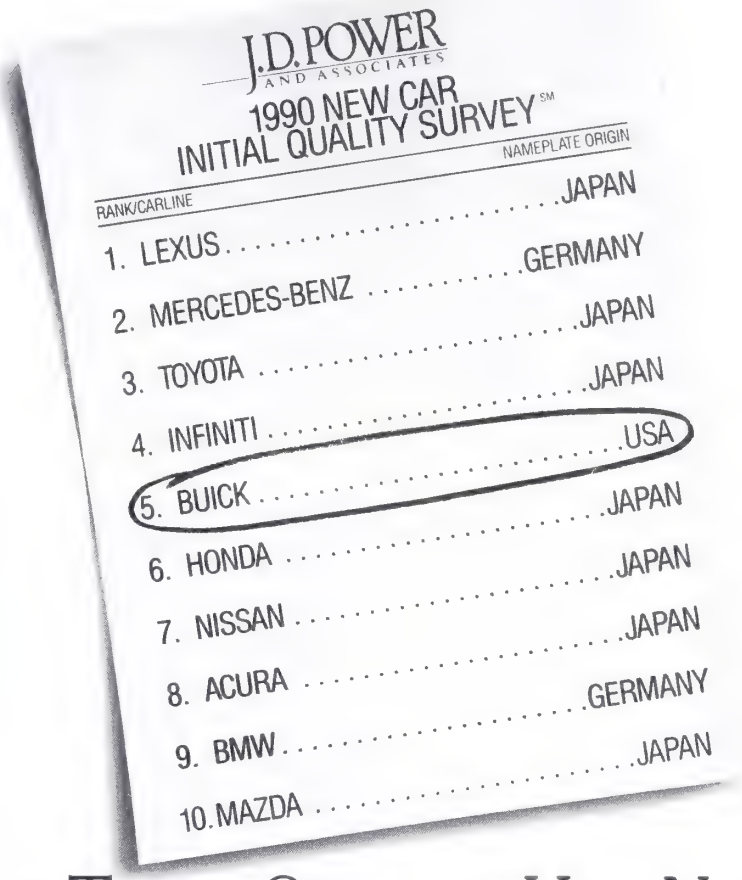
CAPACITY UTILIZATION

Thursday, Aug. 16, 9:15 a.m.
The small gain expected in industrial output suggests that operating rates in July fell to 83.4% from 83.5% in June.

MERCHANDISE TRADE DEFICIT

Friday, Aug. 17, 8:30 a.m.
The foreign-trade deficit likely narrowed slightly, to about $7.3 billion in June from $7.7 billion in May. All of the improvement is expected from a fall in imports, which had risen 2.9% in May. Exports, up 2.3% in May, were probably unchanged in June.

BUICK.
THE ONLY AMERICAN CARLINE TO RANK IN THE TOP 10 IN INITIAL QUALITY.



BUT THEN, QUALITY HAS NEVER BEEN FOREIGN TO BUICK.

Year after year, Buick's reputation for quality grows stronger and stronger.

The latest measure of Buick quality is the J.D. Power and Associates 1990 Initial Quality Survey.℠ This is an independent survey of over 26,000 new-car buyers, based on owner-reported problems during the first 90 days of ownership.

Buick ranked ahead of imports like Acura, Honda, BMW, Nissan and Mazda. And, for the second year in a row, Buick is the most trouble-free American carline. For world-class quality that's made in America, see your Buick dealer. Call 1-800-446-2837.

BUICK.

The New Symbol For Quality In America.

GM

Let's get it together...buckle up.

©1990 GM Corp. All rights reserved.

COVER STORY

OIL WAR: THE WORLD VS. IRAQ

STRONG ACTION FROM BUSH—AND A DRAMATIC SHOW OF UNITY

Sitting in a hotel lobby off one of Dubai's choked and sweltering streets, Muhammad crushes out a Marlboro. He immediately lights another. On Aug. 2, the 26-year-old math teacher left his native Kuwait for a two-day fling in the main port of the United Arab Emirates. Within hours, 100,000 Iraqi troops would brutally capture his homeland, sending world oil prices—and global economic anxiety—surging. To Muhammad, now without a country or money anyone will accept, the solution could not be simpler. "Only the Americans can help," he tells a U. S. visitor. When asked how, his reply is quick: "Do another Panama."

POWER BROKER. But if anything is clear in Iraqi leader Saddam Hussein's lightning annexation of neighboring Kuwait, it's that this is no Panama. Trying to oust Iraq from Kuwait will make Washington's other well-choreographed military strikes in such places as Libya and little Grenada seem like child's play. The Iraqi despot, who commands the fourth-largest military in the world, is intent on displacing Saudi Arabia as the power broker in the Persian Gulf and on controlling the oil wealth that is crucial to continued economic growth in the U. S., Europe, and Japan.

Faced with this unacceptable prospect, the normally cautious George Bush had little choice but to act with alacrity. Within days of the invasion, Bush dispatched U. S. air forces and ships to the area to defend against an Iraqi attack on Saudi Arabia. "There's no justification whatsoever for this outrageous and brutal act," the President said in an Aug. 8 address to the nation. "If history tea- es us anything, it is that we must res aggression or it will destroy our fr doms. Appeasement does not work. was the case in the 1930s, we see Saddam Hussein an aggressive dicta threatening his neighbors."

And so Bush, a World War II fli has drawn a line in the sands of Arab where there's so much oil it's worth

Saddam commands the fourth-largest military in the world—and wants to become the region's power broker by controlling the oil wealth crucial to economic growth in the West

ıg to war for. Vastly raising the stakes ı the Persian Gulf—and those for his wn Presidency—Bush insisted that . S. national security will be maintained y nothing less than Iraq's withdrawal om Kuwait and the return to power of ıe ruling monarchy.

That leaves the fearsome Saddam ithout a face-saving exit, and sets ɔals that will be difficult for the U. S. achieve. For Baghdad hasn't flinched. n the contrary, Saddam on Aug. 8 anounced that Kuwait was being abrbed into Iraq and vowed he would ıtlast the allies' resolve.

Deterring an attack on Saudi Arabia is ıe thing. Dislodging more than 100,000 ıg-in Iraqi troops from Kuwait is quite ıother. With a battle-hardened army of million soldiers, Saddam seems thorghly prepared to push his campaign r regional dominance to the brink of ır. Even as 26,000 U. S. soldiers and ilors and 21 ships converged on the ea, U. S. intelligence analysts indicated at Iraq was loading chemical weapons onto aircraft headed for the "neutral" zone separating occupied Kuwait from the Saudi kingdom.

Ultimately, the battle for Kuwait may be seen as just the beginning of a sweeping realignment of politics across the Mideast. For starters alone, it has shattered the Arab fraternity and prompted ever-cautious Saudi Arabia for the first time to make itself a staging post for U. S. air and ground forces. That may lead to a risky, extended U. S. presence in a part of the world that has long been a minefield for outsiders. The volatile mix of anti-Americanism and Saddam's brand of Arab nationalism may destabilize the area for years.

NEW ORDER? Saddam's invasion of Kuwait—and whether the industrial world can end it—will also likely stand as a seminal event in defining a new post-cold-war order. The crisis already is raising the prospect of a new mission for NATO, one that would entail operations beyond Europe. And as the strategic competition between East and West recedes, Third World tyrants such as Saddam, armed with the technology to produce missiles and nuclear weapons, will become both more dangerous and harder to control. If their regional power plays cannot be kept in check by the threat of broad international retaliation, such crises will proliferate. "The question," as one senior State Dept. official puts it, "is whether Iraq's brand of aggression is the last gasp of an old order, or the first breath of a new one."

A chilling imponderable. And fears about the answer prompted a startling display of solidarity as nation after nation lined up against Saddam's land grab. The sound of the last Iraqi cannon blast had barely faded in Kuwait City when the European Community, Japan, and China had joined the U. S. in condemning the Iraqi invasion and pledging support for a suffocating economic embargo and possibly a naval blockade to make it stick. Even the Soviet Union, a beneficiary of the high oil prices Iraq hopes to sustain, didn't hesitate to throw its lot in with the U. S. and the allies. In a sign that the new cooperation is for real, the United Nations Security Council imposed on Iraq its toughest sanctions ever.

STAGFLATION FEARS. In the short term, the oil war has greatly increased the risks of a recession in the U. S. Immediately convinced of that, financial markets reeled on the news (page 33). And oil prices, though stabilized by word that Saudi Arabia and Venezuela would boost production, figure to remain stuck at a higher level for some time, fueling worldwide inflation (page 26). The crisis also has sparked fears of a return to the stagflationary economy of the 1970s, while hurting chances for a significant U. S. deficit-reduction agreement this year (page 28). Quick, severe cuts in U. S. military spending now seem to be out of the question.

But the long-term risks of backing away from Saddam are surely

■ ON THEIR WAY: MARINES AT MOREHEAD CITY, N.C.

■ 'If history teaches us anything, it is that we must resist aggression or it will destroy our freedoms. Appeasement does not work'

TOP RIGHT: PHOTOGRAPH BY BRACK BLACK STAR

STEPS TOWARD AN OIL WAR

JULY 24 Iraqi troops mass on Kuwaiti border. Baghdad demands a $7-per-barrel oil price hike, to $25

AUG. 1 Talks between Iraqi and Kuwaiti officials collapse. Some 100,000 Iraqi troops are camped on Kuwait's border

AUG. 2 Iraq invades. Kuwait's royal family flees to Saudi Arabia. Washington bans trade with Iraq and freezes all Iraqi and Kuwaiti assets

AUG. 4 The European Community says it will boycott oil from Iraq and Kuwait

AUG. 6 U.N. Security Council imposes mandatory trade embargo on Iraq. Defense Secretary Richard Cheney wins Saudi agreement to base U.S. troops on Saudi soil

AUG. 8 Saddam announces he is annexing Kuwait. Britain pledges to send troops to Saudi Arabia. President Bush tells nation he has 'drawn a line in the sand'

greater than any of these immediate woes. Iraq now controls 20% of OPEC's production—even if it can't now bring it to market. And Saddam is showing no sign of retreating from his plan to menace the region's largest producer, Saudi Arabia. That means control of a resource critical to industralized economies will remain in great jeopardy so long as his power and ambitions go unchecked.

CHOKE-HOLD. The Administration hopes to bring Iraq to heel with a two-pronged strategy of economic pressure and military force. A multinational naval armada will soon enforce a total economic embargo. Though embargoes in the past have proved dismal failures, many experts believe Iraq is particularly vulnerable to such a choke-hold. Under the U. N. sanctions, Iraq will find itself without customers for its oil, which accounts for 90% of its exports, and unable to purchase food, spare military parts, or anything else. That could quickly prove devastating for a country dependent on imports for about 75% of its food. Iraq could be without bread by September.

But if Iraq's opponents are hoping for a quick resolution, they're likely to be disappointed. Though Saddam's support even in the Arab world is thin, he's proved in his 11-year reign that he's a survivor. He has murdered political opponents and once used a penknife to cut a bullet out of his leg. And the Iraqis have demonstrated a superhuman endurance in support of his ventures: During the eight-year war Saddam started with Iran, Iraq lost 500,000 troops—twice the U. S. losses during World War II.

The Iraqi ruler may well opt to test his opponents' determination off the battlefield, for the embargo can squeeze them as well. If shutting down Iraqi and Kuwaiti oil exports creates a severe shortage, for instance, pressure will intensify in industrialized countries to cheat. "Right now, talk is cheap," notes Clyde R. Mark, a Middle East specialist at the Congressional Research Service. "Everyone says, 'We'll refuse to buy Iraqi oil.' A month from now they might switch."

Ultimately, Saddam may be willing to swallow any deal that does not restore the Kuwaiti monarchy. But his army still will tower over the region. His stocks of chemical weapons—and a proven willingness to use them—will intimidate neighbors. And he will be able to control OPEC pricing policy from Baghdad. Saddam "will be the 800-pound gorilla of the Middle East," says former Defense Secretary Harold Brown.

One key to the Iraqi leader's strate is to destabilize the Mideast by spotlig ing the division in the Arab world b tween wealthy, family-run sheikdo and their far more populous but vas poorer and envious neighbors. Now, t risk is that from Saudi Arabia to Om to the United Arab Emirates, the leg macy of ruling regimes may be und mined. "Even with a return to the stat quo ante, this will be a watershed," sa Richard W. Murphy, former Assista Secretary of State for Middle East A fairs. Adds one former adviser to yadh: "What Saddam is telling the Sa dis is, 'Your days are numbered, matter what.' "

That dagger over the Saudi royal fa ily vastly complicates an already dif cult equation for Washington and its lies. Ever since the humiliating Reaga era pullout from Lebanon and the cove sale of arms to Iran, the U. S. has be viewed as an undependable friend by t regimes now under fire.

QUAGMIRE. To secure Riyadh's acqui cence in stationing U. S. troops on Sau soil, Bush was forced to pledge th "America will stand by her friends." doing so, the President redeemed the i plicit promise of the Carter Doctri that the U. S. will use force to safegua

s access to Mideast oil. And as long as addam remains on the scene, an exanded U. S. presence will be crucial to eeping the peace. "You won't solve the roblem permanently until you set up a egional arrangement that prevents Sadam from doing this again," says former ssistant Defense Secretary Lawrence Korb. "The key to it is getting base ghts" throughout the gulf region. That ould mean U. S. troops will be mired in e Middle East for the long haul.

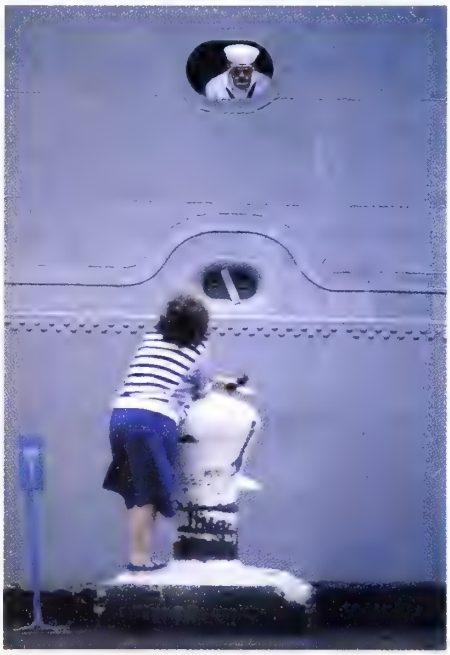
But a permanent or semi-permanent . S. military presence in countries such Saudi Arabia, Oman, and the UAE ould prove to be a double-edged sword. t a time when Washington is champiing democracy from Managua to Mosw, propping up rich feudal monarchs the Middle East is an embarrassing minder of the U. S. tendency to align self with teetering oligarchies.

Still, there could be diplomatic gains r the U. S. as the Byzantine politics of e Middle East play out. After tilting ward Iraq during and after its war ith Iran, Washington may now find retions improving with Iran and Syria, aghdad's arch-enemies. And Iraq's ocpation of Kuwait will both help to end strained U. S. ties with Israel and flect attention from Israel's occupan of the West Bank and Gaza Strip.

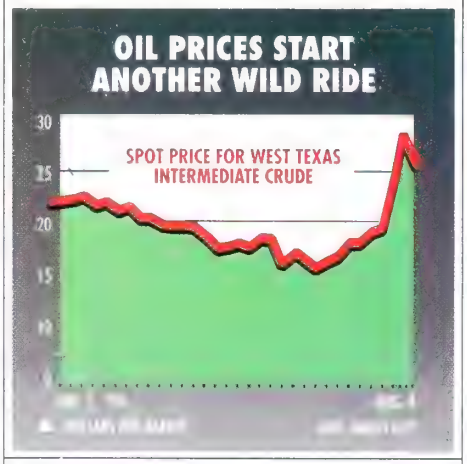
VIET SNUB. None of this volatility uld have happened without the fundaental transformation in East-West reions in the last year. In the past, gional disputes were played out ainst the backdrop of superpower rilry. But without U. S.-Soviet stragic competition, Saddam no longer is ewed simply as a Soviet pawn. His ab for regional dominance is revealed r what it is: a blatant power play. here Moscow would have once torpeed sanctions against a client state ch as Iraq, now Soviet cooperation th the West makes an embargo credie. Says Francis Fukuyama, a Rand rp. analyst and former State Dept. ficial: "This makes it possible for coltive security to work in a way that it sn't in this century."

But any viable collective security plan ll needs a leader. George Bush, the lf-proclaimed "foreign-policy Presint," couldn't be happier to oblige. The lministration realizes that, in the abnce of a strong Soviet presence ound the world, the key to any collece peace-keeping approach to solving gional crises will require the U. S. to as both global arbiter and a catalyst concerted action. "The U. S. stepped ward in this affair, and whether the S. will lead in the post-cold-war era ll depend on its performance," says nes R. Schlesinger, former Secretary Defense and Energy.

So far, Bush has carried out his role with aplomb, as his penchant for personal diplomacy with his fellow world leaders has paid handsome dividends. Even Democratic critics applaud his ability to cajole such disparate partners as China, France, the Soviet Union, and Turkey into action. "The President has done a masterful job in lining up support," says Madeline K. Albright, a defense expert at the Center for National Policy and a former adviser to Democratic Presidential nominee Michael Dukakis. Adds Stuart E. Eizenstat, a senior White House adviser to President Carter: "The crisis management has been A-plus."



FOND FAREWELLS: THE USS HART PREPARING TO LEAVE NORFOLK, VA.



Bush's bold response has won him strong support among the American electorate as well. Polls show that if the President takes military action, the public will back him overwhelmingly. And Congress, normally a hotbed of partisan rivalry, is cheering. Both Democrats and Republicans are standing steadfastly behind Bush. Says Representative William S. Broomfield (R-Mich.), the top Republican on the House Foreign Affairs Committee: "Saddam has stuck his thumb in our eye. We should break his arm."

But if the war of nerves turns into a shooting war, these political accolades may prove to be ephemeral. No matter how well Bush steers through the current crisis, the spike in oil prices has significantly raised the odds of a recession that could cost the GOP dearly in the fall elections. Even more disturbing to Republicans, Bush is in a Middle East boneyard that destroyed Jimmy Carter's Presidency and came perilously close to stripping the fabled Teflon from Ronald Reagan. "Let's face it, no President has ever built successfully on the politics of the Middle East," says Republican political analyst Kevin Phillips. "This is no place to play gunboat diplomacy."

VANISHING VOTERS? If the long standoff starts to wear thin, U. S. allies may be tempted to desert the President's tough stand against Iraq, and his support among the American people may begin to wither. And if hostilities erupt and the U. S. is drawn into a long war of attrition, Bush faces more serious problems. His chances for reelection rest on a platform of continued peace and prosperity. Without either, an incumbent President who just a few months ago seemed to have a lock on reelection would suddenly be vulnerable.

But drawn into a far-off crisis not of his own making, the U. S. leader has no time to engage in such gloomy speculation. Only the most starry-eyed optimists really believed that the passage of the cold war would usher in a golden era of peace. "We've known all along about the serious regional problems that would remain, but they're leaping to the fore quicker than we thought," says Representative Lee Hamilton (D-Ind.), chairman of the House Middle East subcommittee.

Until now, Bush's foreign policy challenge has been merely to try to shape to his own advantage the peaceful revolution sweeping Moscow, Eastern Europe, and Latin America. But it's the hot winds of war that now blow through the Middle East. And in Iraq, President Bush faces a crisis that is a throwback to an era before the last world war, when a brutal expansionist dictator could force the great powers to choose between appeasement and bloodshed. Suddenly, the nagging doubts about whether George Bush has the vision to carve out a U. S. role in a new world seem irrelevant, lost in a global struggle over oil. The test for Bush is about to become a question not of vision, but of blood and guts.

By Bill Javetski, Amy Borrus, and Doug Harbrecht, with Seth Payne, in Washington, John Rossant in Dubai, Stanley Reed in New York, and bureau reports

PHOTOGRAPH BY TIM WRIGHT; CHART BY LAURE DAUNIS/BW

COVER STORY

IF SADDAM CAN BE STOPPED, OIL'S WILD RIDE MAY END

A cartel dominated by the Saudis is likely to be friendlier to the West—and more market-driven

When members of the 82nd Airborne lifted off for Saudi Arabia on Aug. 7, the rules of the game for OPEC changed forever. Facing the threat of an Iraqi invasion, OPEC's No. 1 producer for the first time allowed a strong U. S. military presence on its soil. In so doing, Saudi Arabia cast its lot with that of its customers in the industrial world. That decision could herald the end of Iraqi President Saddam Hussein's bid to restore OPEC's role as the supreme dictator of high oil prices and mark a key victory for consumers in the petroleum market's decades-long seesaw battle of supply and demand. Says Salomon Brothers Inc. oil analyst Bernard J. Picchi: "The hawkish element of OPEC is dead."

That doesn't mean OPEC is dead, of course. Assuming the U. S. and its allies can restrain Saddam, the 30-year-old cartel will still exist and meet for years to come. If the Iraqi leader prevails, oil markets would be thrown into a panic. But under Saudi domination, OPEC may become more user-friendly, largely driven by market forces. Such wealthy Persian Gulf OPEC members as the United Arab Emirates and Qatar, along with nonmember Oman, long have sided with the Saudis' attempts to maintain moderate oil prices through high production (table). Indeed, Saddam invaded Kuwait, the most vocal advocate of moderation alongside the Saudis, in part to remove the tiny state's competitive threat. Now, with 356 billion barrels of proven crude-oil reserves and hundreds of billions of petrodollars invested in oil refineries, gas stations, and financial markets throughout Europe, Asia, and the U. S., (page 35), the gulf's remaining doves are aware that their economic future is inextricably linked with that of their customers.

WHIP HAND. The spike in world oil prices, from $20 to $28, immediately after the invasion of Kuwait, was a grim reminder to oil importers of the days when OPEC held the whip hand. Oil prices quadrupled in 1973 and then nearly tripled again in 1979. Yet as its moderate members learned, OPEC, too, paid a heavy price: Its share of world oil output skidded from 55% to 32% in the face of competition from conservation, alternative forms of energy, and new production outside the 13-member cartel. Only recently have they been rebuilding. But now, with U. S. troops on Saudi soil, "the hawks will be reminded that the penalties for excessive prices are severe," says Michael C. Lynch of the Washington International Energy Group.

Saudi Arabia's former Oil Minist Ahmed Zaki Yamani, made that cle more than a decade ago, when pric were soaring during the early days f the Iranian revolution. During a tum tuous OPEC meeting in Caracas, Yama warned his fellow ministers that pric would plummet if they persisted squeezing consumers. He was as go as his word. Not much later, the Saud dramatically boosted their outpu knocking down crude prices.

This time, relief may be coming ev sooner (table). A U. N. trade embargo Iraq and Kuwait has prevented the t countries from exporting some 3.8 m lion barrels a day—10% of the industr world's consumption. To fill the gap, t Saudis are preparing to raise producti by as much as 2 million barrels a da Venezuela has offered 400,000 to 500,0 barrels more. Nigeria is likely to join as well. Iran, Iraq's sworn enemy, m also be willing to contribute.

IF IRAQ CAN'T SELL THE OIL IT CONTROLS...

Country	Production	Exports
	Millions of barrels per day	
KUWAIT	1.5-1.6	1.2
IRAQ	3	2.6
TOTAL	4.5-4.6	3.8

...OTHERS COULD TAKE UP THE SLACK

Country	Production	Potential addition*
	Millions of barrels per day	
SAUDI ARABIA	5.3	2.0
VENEZUELA	1.8	1.0
UAE	1.7	0.8
IRAN	3.1	0.2
NIGERIA	1.7	0.25
LIBYA	1.3	0.2
ALL OTHER OPEC	3.0	0.35
OPEC	17.9	4.8
ALL NON-OPEC	43.5	0.2
TOTALS	61.4	5.0

*Capacity that could be added immediately and sustained

DATA: CAMBRIDGE ENERGY RESEARCH ASSOCIATES, BW ESTIMATES

On the consumers' side as well, "the orld is in a better position to handle a risis," notes John H. Lichtblau of the etroleum Industry Research Foundaon Inc. (charts). To bolster supplies, Vashington may be preparing to dip ito its 590-million-barrel Strategic Peoleum Reserve. Other industrial counies may take similar steps. And the oil idustry itself has plenty on hand. The w oil prices that prevailed until recent- have prompted refiners to build their ventories close to a nine-year high.

With luck, those bulging inventories, ombined with additional production, ould drive oil prices back down to $21 a arrel—high enough to avoid causing ain to OPEC but still moderate enough keep the world from plunging into a ep recession. But one faction in the oil arket says that as long as U. S. and aqi troops are facing each other, oil ices will stay at $25 or above.

ANIC FEARS. That's debatable, but in a nic sparked by any full-blown Mideast war, all bets on supply and price ould be off. Buyers, fearful of rising ices and uncertain supplies, would sh to lock in orders, driving prices to 5 or even $60. With U. S. refineries w running at 94% of capacity, "they e already producing all they can," says hn R. Dosher, managing director of ce Consultants Inc. in Houston. "If get into a scarcity psychology, the ole system could be overwhelmed."

Additional supplies outside those alady committed might be hard to come by. The North Sea's towering oil platforms have been hampered by labor disputes and maintenance shutdowns lately, and U. S. production has been in decline since 1985. And while oil companies have boosted exploration outside the U. S. and OPEC, that probably won't add up to enough to offset falling North American and North Sea production. Moreover, the Southwest's hard-hit wildcatters aren't convinced that higher prices are here to stay. "There's a wait-and-see attitude," says James D. Woods, chief executive of oil-field-service group Baker Hughes Inc. "They'll wait six or seven months before they really move."

The nightmare scenario for many is a victory for Saddam, who with his occupation of Kuwait now controls 200 billion barrels of proven reserves, 20% of all the oil in the world. Says Frank Zarb, former U. S. energy administrator under President Gerald Ford and now chairman of Smith Barney, Harris Upham & Co.: "Unless he's destroyed, he's going to be sitting there with a lot of power when this is over." Still, even Zarb believes that Saddam can't keep oil much higher than $25 for long. And many believe that the higher prices climb in a crisis, the faster they will fall.

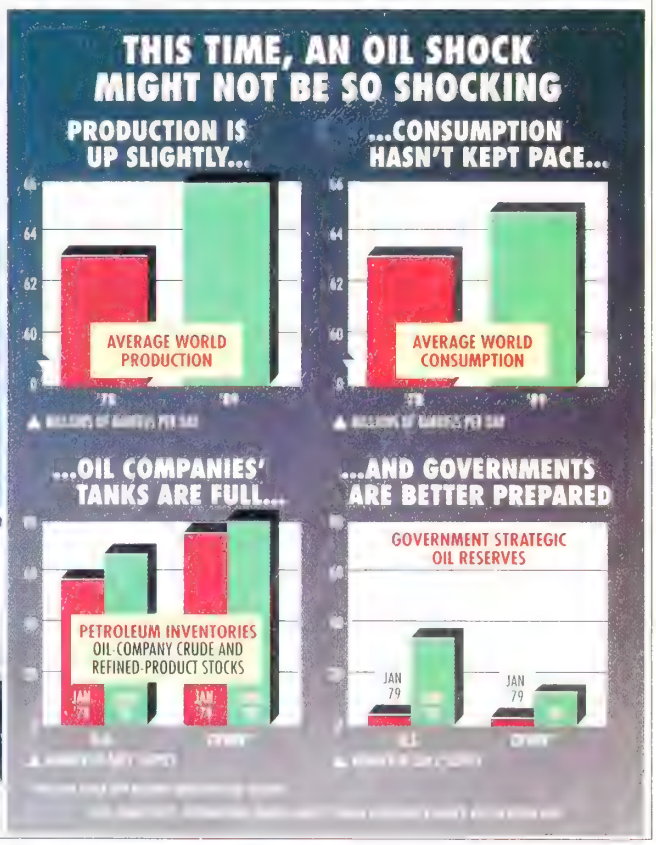
SHRINKING DEMAND. With the U. S. economy slowing, oil demand was already down 2% before Iraqi troops moved into Kuwait. And across the industrial world, countries are using energy more efficiently than ever. Since 1973 the U. S. has slashed by 43% the amount of oil and gas it needs to produce a dollar of gross national product. And Japan has doubled its output since 1973 without increasing its energy consumption.

The latest bout of Mideast tension may only accelerate the trend away from OPEC oil, no matter which way prices cycle. "Iraq's action has put energy back on the political agenda," says Joseph Stanislaw of Cambridge Energy Research Associates. In Washington, there is renewed interest in a Senate bill boosting new cars' average fuel efficiency to 40 miles per gallon. The U. S. oil industry is gearing up to seek new tax incentives for domestic production and the opening of Alaska's Arctic National Wildlife Refuge to exploration. And coal, natural gas, and even nuclear power may continue to cut into oil's markets.

It's the very insecurity of oil that could drive the rest of OPEC to forge a new relationship with its clients. Even as OPEC's big members have seen their markets erode, the industrial world is ever more mindful that its economic survival lies in keeping the Mideast's oil easily available. "Never before have big-power politics gone so directly to the heart of the oil sector," says Edward L. Morse, a former U. S. energy official and publisher of *Petroleum Intelligence Weekly*. Driven by guns and economic self-interest, the agendas of OPEC and the rest of the world are converging.

By Robert Buderi and William Glasgall in New York, with Mark Ivey in Houston and bureau reports

KUWAITI OIL: IN THE PIPELINE AND GOING NOWHERE



■ COVER STORY

IS STAGFLATION STALKING THE GLOBE AGAIN?

Maybe not. The world's industrial giants just might be able to keep inflation in check this time arour

War in the Mideast. An oil embargo. Surging quotes for crude. And higher prices at the gasoline pump.

It's impossible to follow today's news without wondering if the global economy of the 1990s might soon resemble those stagflationary days of the 1970s. Remember? Jolted in 1973 and 1979 by sharp hikes in oil prices, much of the world found itself beset by simultaneous bouts of sluggish growth and inflation. And nowhere was the stagflationary psychology more acute than in the U. S.

This time around, it may not work out that way. For while higher oil prices surely will dampen business activity, there are lots of reasons to suspect that prices won't spring upward in a new inflationary spiral. Already, Japanese and West German central bankers are fighting inflation with higher interest rates. In the U. S., recession is a clear and present danger. But that very weakness may help Americans avoid a fresh round of surging prices. And Federal Reserve Board Chairman Alan Greenspan thinks that the banks' continuing squeeze on credit gives the Fed some room to ease without igniting an oil-fueled inflationary spiral.

LESSONS LEARNED. The prospect of a U. S. recession can in no way be construed as good news. But today's outlook isn't as worrisome as it might be had the big market economies not changed their way of doing business. For they're now far less dependent on oil (chart). Giant equipment maker Deere & Co., for example, since 1972 has slashed its fuel use by half. That shift toward conservation, along with other efficiencies, should blunt the pain of higher oil prices. What's more, there's some reason to believe that U. S. policymakers, who in the '70s flailed at curing stagflation with wage and price controls, oil rationing, and a stop-and-go monetary policy, have learned a lesson or two.

Still, there's no denying that higher oil prices could slow the world economy. And more costly energy will certainly stunt Eastern Europe's growth. Moreover, about the last thing Third World debtors need—excepting such oil exporters as Venezuela and Nigeria—is to pay more for oil.

But it all could be so much worse were inflation to reignite. And that, at the moment, seems unlikely. The oil price shock of 1990 is deflationary and not inflationary, argues Dale W. Jorgenson, a Harvard University economist. Or, as Charles I. Clough Jr., Merrill Lynch & Co.'s chief investment strategist, puts it: "This time around, higher oil prices will chew purchasing power away from the rest of the economy."

Why isn't it all doom and gloom? First and foremost, West Germany and Japan remain steadfastly hawkish on the inflation front. More persuasive than any central-bankerly rhetoric, these nations can afford to stand firm: Their economies are so strong that they can p more for both oil and credit and s grow at respectable rates (charts).

The Fed can't be that sanguine. T U. S. economy is so weak that a high price for crude might easily plunge t nation into recession. Economic foreca er DRI/McGraw-Hill calculates that the price of oil were to spike to $40 barrel, it could slash more than 1. from gross national product, enough bring about recession.

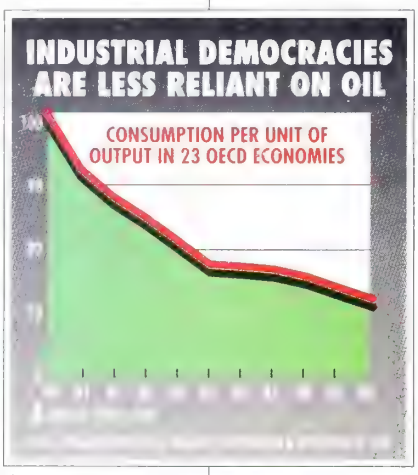
FALLING PRICES. Yet that fragility m prevent a relapse of stagflation. Cons er commodities prices, a key gauge inflationary expectations. Before t 1973 oil embargo, commodities quot soared 50%, notes Edward S. Hyma chief economist at C. J. Lawrence, Mo gan Grenfell Inc. Likewise, before t 1979 oil price shock they were up 18

■ MICKEY IN CRUNCHLAND: HIGHER PRICES FOR GAS AND AIRFARE MAY HURT THE TOURISM IN

Inderlying those gains was a U. S. economy that had been sprinting along at a % pace, fueled by a rapidly expanding oney supply. But this time, commodies prices were falling, the economy as sluggish, and the money supply was ching along.

The economy's weakness is the legacy f the 1980s debt binge. Leveraged comanies, worried about paying back what ey've already borrowed, may scotch xpansion plans. And with debt equaling % of household income, up from 72% the early 1980s, families are pinched. Another critical difference: Policymaks in Washington may well be loath to pose price controls and rationing on e oil industry after their abysmal failes in the 1970s. The Fed also learned e hard way that opening up the monery spigot to offset the shock of higher l prices only yielded rampant inflation. In any case, while Greenspan may be illing and able to ease a tad to buffer e impact of higher oil prices, he knows can't be seen by investors to be abaning his anti-inflation stance. Otherse, they would dump Treasury bonds, ose value would plummet were inflaon to heat up. That, in turn, would nd U. S. interest rates soaring, brakg growth and making it all the more pensive to finance the government's dget deficit. "Greenspan would like to se and fight recession," says Donald H. Straszheim, chief economist at Merrill Lynch. "But he fears he'll be seen as caving in to inflation."

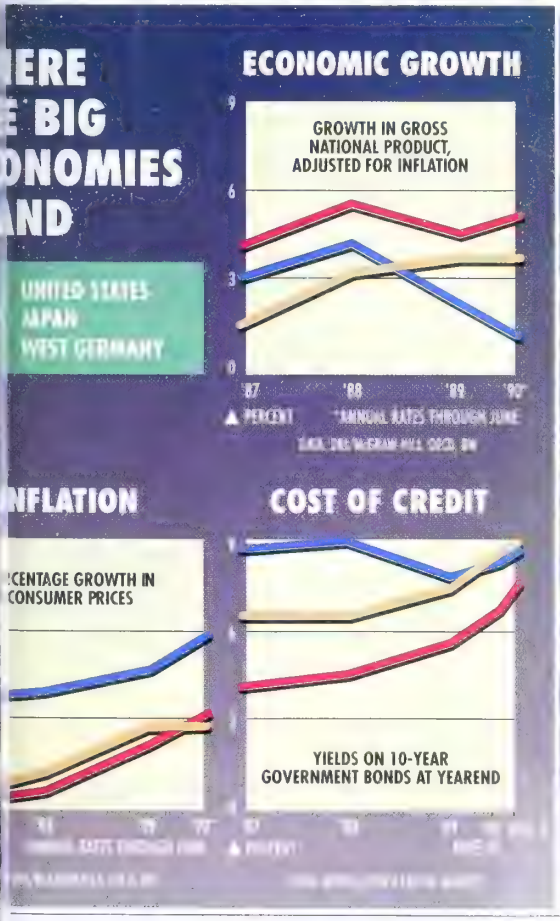
American businesses are constrained, too. Take the chemical companies. In the '70s, limited competition let them pass along higher costs to consumers pretty much at will. But now, global chemical supplies have been rising, and prices are falling. It's likely that chemical makers will be forced to eat higher crude prices. "They'll be under margin pressure," says A. Nicholas Filippello, Monsanto Co.'s chief economist.



No industry underscores the point better than the airlines. They consume some 15 billion gallons of jet fuel a year. If oil prices remain at $25 a barrel for a year, the airlines' annual costs will jump $4 billion, reckons consultant Airline Economics Inc. That's why several carriers are imposing jet fuel surcharges. But many analysts question whether the price hikes will stick. Already in the year's first half, industry earnings plummeted 73%. "If they raise fares now, it's going to hurt traffic," says Paul P. Karos, airline analyst at First Boston Corp. And with fixed costs high, airlines need traffic to maintain profitability.

EXPORT SHIFT? Overseas, the other big economies are in far better shape, compared with both the U. S. and their positions in the '70s. Japan still must import 99% of its oil. That leaves it especially vulnerable to interruptions in supply. But Nobuyuki Ueda, a senior economist at the Long-Term Credit Bank of Japan Ltd., observes that $25-a-barrel oil for six months or more would reduce growth in GNP by just half a percentage point in the first year. And nowadays, oil products provide just 45% of Japan's total energy, way down from 68% in 1973.

Higher oil prices may prompt Japan to shift its export focus away from the U. S. If Japan's economy slows a bit because of higher oil prices, companies with idle capacity will try to export more, predicts Kenneth S. Courtis, senior economist at Deutsche Bank in To-



■ SITTING PRETTIER: OIL PROVIDES 45% OF JAPAN'S ENERGY. IN '73 IT WAS 68%

PHOTOGRAPH BY POTTER/GAMMA-LIAISON (TOP TO BOTTOM) CHARTS BY ALBERTO MENA/BW RAY VITILA/BW

ICI

digital™

"Digital is helping ICI Pharmaceuticals make better use of information so we can better contribute to human health."

Bill Lalor
President
ICI Pharmaceuticals

"As a multinational corporation, ICI Pharmaceuticals Group looks for innovative ways to take advantage of our widespread resources. One way is Digital's open systems architecture. It makes us more competitive today, more prepared for tomorrow.

"Examples abound. Digital's open architecture lets R&D tap into a single, worldwide database. Instead of duplicating work, we now share it. And that trims months off development time. Our system allows access to information direct from the field. So we know more and we know it sooner. As a result, we're better able to respond to market conditions. The system even plays a role in the FDA approval cycle. Our ability to retrieve and reformat test data accelerates the process, giving us a significant advantage.

"Digital's open systems architecture is opening a world of possibilities for us in the 90s. All of them healthy."

The rewards of working together.

Digital's open systems architecture lets you integrate your heterogeneous computing environments.

Today, because of this open approach to computing, Digital gives you an elegantly simple way for your people to work together more productively, more creatively, more efficiently, more competitively.

To learn more, write to Digital Equipment Corporation, 129 Parker St., K29, Maynard, MA 01754-2198. Or call your local Digital sales office.

A way to work together like never before.

Digital has it now.

kyo. But if the U. S. is in recession, Japan will target such cash-rich Asian nations as Indonesia.

Western Europe, too, is heavily dependent on imported oil, taking 19% of world consumption but chipping in only about 6% of production. Yet Europe, which this year has been anticipating 3% economic growth, wouldn't necessarily sink into recession. West Germany, especially, could likely withstand even a large oil shock. Higher oil bills of $3.5 billion a year can easily be paid from trade surpluses that are now running at an annual rate of more than $80 billion.

Europe's most vulnerable countries are the former Soviet satellites. Much more energy-dependent than their Western neighbors, if oil prices remain at present levels "these nations will have to shell out as much as $12 billion," predicts Franz-Lothar Altmann, senior economist at a West German government think tank. That might belatedly put the Eastern Europeans through a 197- style oil crisis.

For much of the industrialized wo though, '70s pain may finally show payoff. Bad as those stagflationary d were, they prepared the West for t troubles ahead.

By Christopher Farrell and Michael Mandel in New York, with William Gl gall in New York, Mike McNamee in Wa ington, Robert Neff in Tokyo, Igor Reich in Bonn, and bureau reports

BUDGET-CUTTING IS BACK IN THE BACKSEAT

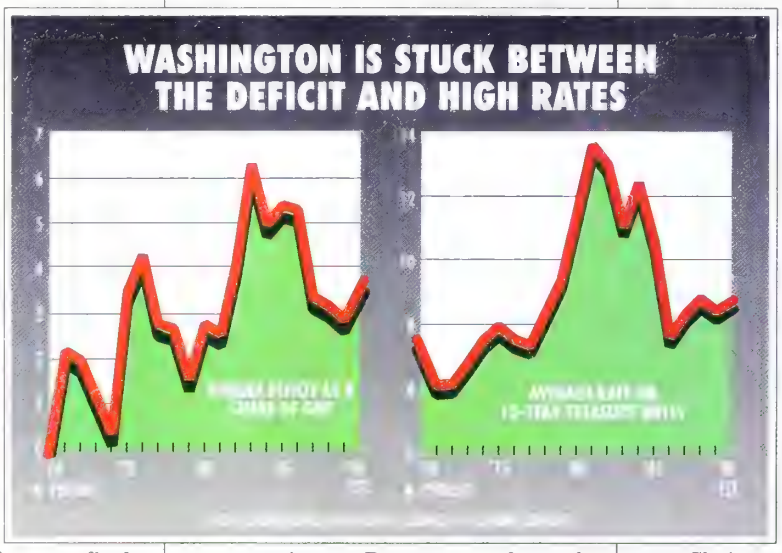
The Persian Gulf crisis has all but eliminated hopes for a big deficit-reduction package this year.

Saddam Hussein's invasion of Kuwait sent energy prices soaring and threatens to tip an already faltering U. S. economy into recession. Even before Saddam's strike, the approaching November election and economic jitters had made legislators wary of raising taxes and slashing spending. Now, the Mideast mess has delivered a knockout blow to two key elements of any budget deal: an energy tax and quick Pentagon cuts. At best, deficit hawks hope to salvage a modest package—probably after the election. But "right now," says one senior GOP Hill aide, "serious deficit reduction is dead in the water."

While it's risky to slash the deficit in the face of a weakening economy, there are compelling reasons for action. Without an accord, the Federal Reserve Board must thread its monetary needle more finely than ever. It's caught between pressure to pump more money into a slowing economy and the fear that, if it does, oil-driven inflation might worsen. The long-term bond market is already on edge after taking its worst pounding in three years on Aug. 6. And it may plummet further if it believes that Fed Chairman Alan Greenspan is conceding defeat in his battle for price stability.

Congress and President Bush could make Greenspan's job easier with a credible budget deal. Instead, higher oil prices and a slowing economy will make the deficit even more frightening by increasing government spending and lowering tax revenues. Economists reckon that a doubling of energy prices, to the equivalent of $40-a-barrel oil by December, could increase inflation and interest rates and slow the economy (charts). That could add $60 billion to the projected $232 billion fiscal 1991 deficit.

Yet the best options for large-scale savings vanished in the smoke of the Iraqi blitzkrieg. Energy taxes—either on gasoline or on all consumption—had been a prime revenue target for budget negotiators. But now, no lawmakers will raise taxes on consumers incensed by big gas price hikes.



Indeed, support is growing for new energy tax cuts to encourage domestic oil and gas production as well as conservation. Key lawmakers such as Senate Finance Committee Chairman Lloyd Bentsen (D-Tex.) are looking at tax incentives for drilling and exploration, some of which have already been endorsed by ex-oilman Bush.

NO PINK SLIPS. The biggest source of spending cuts in any budget pact was to have been the Pentagon. Even Republicans seemed resigned to reductions of $180 billion in planned spending over five years. While long-term military savings remain likely, the odds of big, near-term cuts have diminishe The only way to save much money i '91 is to slash personnel and opera tions—and that's not about to happe even though most U. S. military spen ing goes for the defense of Europe an has little bearing on the present co flict. "If you're mobilizing in the Mi dle East," says one House Democrati aide, "I can't imagine giving out pin slips to 100,000 troops."

The gulf crisis may also have spike Bush's biggest defici buster—the threat o automatic across-the board spending redu tions. Those cuts ar mandated by th Gramm-Rudman law i the '91 deficit is not cu to $74 billion.

Budgeteers still hop the crisis will be re solved quickly and def cit talks can get bac on track. But without speedy Mideast settle ment, Bush and Co gress will be forced t abandon the '91 budge targets. Some Whit House aides, as well a House Budget Commit tee Chairman Leon E. Panetta (D Calif.) and senior Senate Budget Com mittee Republican Pete V. Domenic (N. M.), are exploring a more modes strategy. They're looking to cut the '9 deficit by about $25 billion, half wha they had hoped. That plan would prob ably result in five-year reductions o $400 billion or less—well short of th hoped-for $500 billion deal.

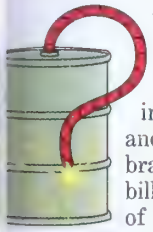
To skittish lawmakers, though, ev a scaled-back agreement would contai too many tough tax and spendin choices. Now, Saddam Hussein has le them off the hook. And the U. S. ma have lost its best chance to get th budget under control.

By Howard Gleckman, with Mik McNamee, in Washington

COVER STORY

SUDDENLY, 'INVESTOR' IS JUST ANOTHER WORD FOR 'HOSTAGE'

The world's markets were teetering before Hussein mugged Kuwait—and pushed them to the brink



In a sense, the stage was already set.

U. S. stocks were reeling from disappointing corporate earnings, and the bond market was bracing itself for a $32.3 billion refunding, courtesy of the Treasury Dept. In apan, already-high interest rates were ending higher, threatening to finish ff the Tokyo stock market's flagging ebound. Higher rates also seemed inevable in Germany, as the apparent costs f integrating with the East began to imb. All the while, the dollar kept losg ground against every major curren- save the Japanese yen.

Then Saddam Hussein kicked invesrs in the head. Iraq invaded Kuwait, ending the price of oil up 30% and stripng the last shred of stability from the orld's financial markets.

Only the bravest (or most foolhardy) vestors found a hint of good news in e Mideast crisis. The overwhelming ajority saw only slower growth, higher inflation, and higher interest rates. In New York, the Dow Jones industrial average plunged 193 points in four days of moderately heavy selling (charts). Over-the-counter issues suffered their worst days in two years. Although the recent sell-off pales against the October free-falls of 1987 and 1989, there's a significant difference this time around. "You can't blame this on technical reasons or stock-market madness," says William Holzer, portfolio manager of the Scudder Global Fund. "There was an adjustment to reflect the new fundamentals."

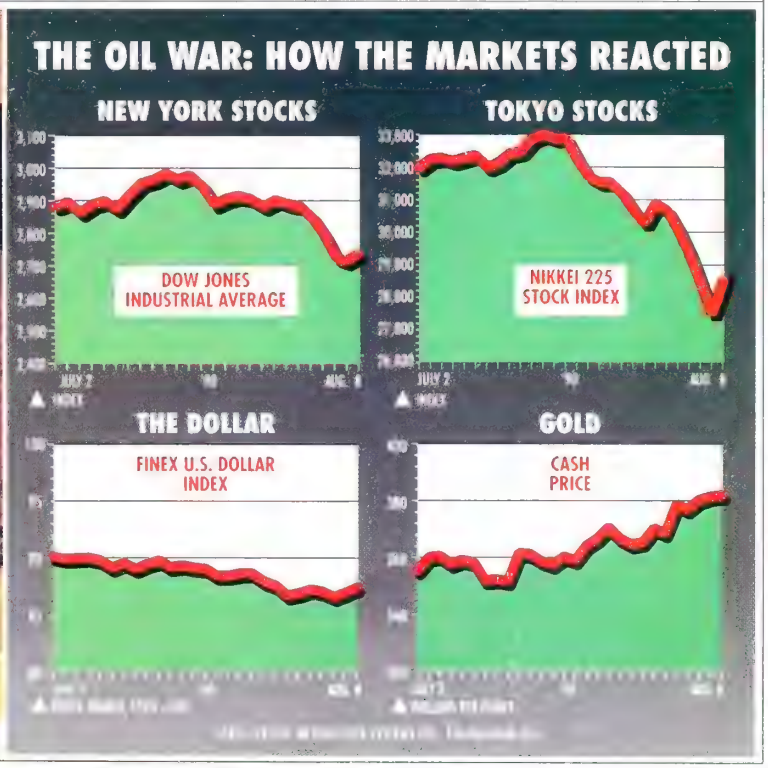
'FREIGHT TRAIN.' Those fundamentals don't fit neatly into fancy pricing models, however. Even the wiliest Wall Street pro with the most powerful computer can't gauge the long-term effects of this sort of crisis. "Oil prices, interest rates, and inflation are already factored into stocks," says Ken Oberman, who runs the Oppenheimer Global Fund. "But who knows what the political status quo is? We're going to have some nasty, uncomfortable days in the market as we go from here."

The decline seemed to taper off by Aug. 7, and the Dow bounced back 24 points, to 2735, on Aug. 8. But few thought they had seen the last of the turmoil. Warren E. Shaw, a managing director at Chancellor Capital Management, has 10% of the firm's $5.2 billion in equity accounts in cash and says he'll sell another 10% if need be. Even would-be buyers are sitting tight. "I have money to spend on stocks, but I'm not going to stand in front of a freight train," says James D. Wright, chief investment officer at Banc One Asset Management.

That train is powered by changed assumptions about the world energy outlook. Many investors have long anticipated an increase in oil prices, and oil and oil-service stocks fared well even before the Kuwait crisis. But in just a few days, the price of oil has reached levels most didn't expect for years.

As long as the Middle East bristles with dangerous uncertainty, investors will have to cast aside their previous expectations of economic growth. The U. S. most likely can't sidestep a reces-

NAIL-BITING TIME AT THE NEW YORK STOCK EXCHANGE



GRAPH BY ANDREW PUPPER; CHART BY ALBERTO MENA PW

■ TOKYO'S NIKKEI: THE OIL CRISIS SPARKED NO PANIC, BUT IT SURE CHASED BUYERS AWAY. SO THE MARKET TANKED, DIVING 11% IN FOUR DAY

sion. Although more robust, European growth is slowing, too, and a hike in the price of oil can only hurt. Japan, with low inflation and the fastest-growing economy among the major industrial countries, is in the best shape. But interest rates have doubled over the last year, and Tokyo traders were skittish even before Saddam's move.

In short, says Barton Biggs, the global-investment strategist for Morgan Stanley & Co., "the world's stock markets are in a cyclical bear market." Only a few stand to gain from higher oil prices: Norway, Malaysia, and Indonesia, which export oil, and Singapore, a financial center for the oil business.

GOLD BOGS. Other markets that might be expected to surge on bad news behaved paradoxically. Gold, which briefly sold for more than $800 an ounce when Iraq invaded Iran in 1980, made an almost imperceptible move, to $383 an ounce, a mere 2.7% gain by Aug. 8. Why? High real interest rates around the world make it costly to hold the metal. In addition, there's more faith that central-bankers will keep inflation in check.

Similarly, foreign-exchange traders shunned the dollar, usually the other safe harbor of choice in rough times. "The U. S. economy is weak, and [Federal Reserve Board Chairman Alan] Greenspan's going to be under terrible pressure to lower interest rates," says David Boardman, portfolio manager for the T. Rowe Price International Bond Fund. "And that would hurt the dollar."

By contrast, the markdown in stocks was true to form. The Nikkei stock average plunged 3383 points, or 10.9%, in the first four days after the Kuwait invasion, before snapping back 856 points, or 3.1%, on Aug. 8. Buyers were scarce, and prices fell in a vacuum. "It's not a panic, but it's painful," says Seiichiro Nakagawa, portfolio manager for BOT Asset Management Ltd., who says he couldn't unload fast enough and now has unrealized losses amounting to 10% of his portfolio.

There's not much relief in sight. Notes Martin H. Paling, a London-based investment strategist for James Capel & Co.: "In any scenario other than a standoff, the equity markets are at risk." Because valuations are still high, Paling says the Japanese, German, and U. S. markets have the most to lose. London, where price-earnings ratios are fairly low, bears the least risk of major markets.

In the U. S., even the safe plays look dodgy, now. For the past year, many have loaded up on what they hoped were noncyclical consumer-growth stocks sure to hold up well in tough times, among them Coca-Cola, Disney, PepsiCo, Philip Morris, and Procter & Gamble. But in the August massacre, investors lost their nerve. In the case of Disney and others, traders tried to calculate the effect higher oil prices would have on discretionary travel. But, notes market analyst Laszlo Birinyi of Birinyi Associates, in many cases money managers sold without much thought of how individual issues might fare in a downturn.

Investors must rethink how a recession might play out (page 74). In a conventional recession, inflation would be expected to ebb, rates to fall, and bo prices to surge. But there's nothing co ventional about today's markets. Rat on the 30-year U. S. government bo have risen to 8.8% since the invasion.

MAIN BUYERS. The U. S. isn't sufferi alone. Government bond yields in Ge many rose 35 basis points (hundredths a percentage point), and 55 basis poin in Japan. But that shared misery su gests only that Japanese and Europe investors will stay home unless the U. retains their loyalty with higher rates

The interest-rate outlook will dicta the next turn in equity prices. A here's where investors can find reas for a modicum of optimism: Since stoc have come down further than intere rates have gone up, some asset alloc tors now rate stocks a buy. In fact, so market watchers think that tactical-ass allocators—investment pros who sh money around between stocks, bond and cash—have been the main buyers stocks in the past few days.

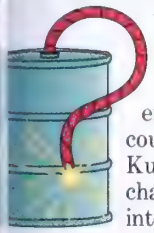
Asset-allocation models often anti pate market moves. But they can't expected to factor in political and mi tary variables. "The bullish case is th we confront Hussein and not let hi dominate the region and dictate the pri of oil," says Byron Wien, the domesti investment strategist at Morgan Sta ley. On Aug. 8, that case seemed at lea plausible. But even the bulls now ha to set their computer models aside a wait for dispatches from the front.

By Jeffrey M. Laderman in New Yo with Karen Lowry Miller in Tokyo a Mark Maremont in London

COVER STORY

KUWAIT'S BILLIONS MAY REALLY BE IN THE DEEP FREEZER

A global scramble for control of its treasure could lead to the biggest financial dispute ever



It's the great $100 billion asset grab.

Ever since the OPEC oil shocks of the 1970s endowed it with riches it could never begin to spend, Kuwait's government has channeled its petrodollars into a bewildering array of ocks, bonds, and entire companies round the world as insurance against e day its crude finally ran out (table). uddenly, with Iraq occupying Kuwait, at fortune—worth perhaps $100 billion more—is the object of a global scram- e for control.

Beginning just hours after the ug. 2 invasion, a host of indus- ial countries including the . S., Britain, West Germany, Ja- n, and even neutral Switzer- nd froze all Iraqi and Kuwaiti sets within their borders. rafted to keep the tiny oil ate's assets out of Saddam ussein's hands, "it's like pro- cting Cinderella from the brig- d of Baghdad," says Phillip R. ood, an international lawyer at ondon's Allen & Overy.

ELVED PLANS. Protecting the sets from Hussein is one thing. guring out who now controls em is quite another. Unless uwait's ruling family is quickly turned to power, determining ho eventually gains control of e treasure promises to become e of the greatest financial disputes er. The most sweeping seizure since orld War II, the freeze dwarfs those posed by the U. S. on Cuba, Iran, and bya. It tightly constricts the move- ent of assets by requiring approval for ch transaction from regulators in estern countries. Even if he puts loyal- s in charge of Kuwaiti investment or- nizations, Hussein won't be able to thdraw their assets.

Members of Kuwait's ruling al Sabah mily will be able to touch at least part the money as private citizens, though ey will be constrained by freeze rules where they can move it. So inter- ined are the affairs of the ruling fam- with those of its citizens and the state that no outsider can know for sure where the al Sabahs' assets end and the government's begin.

With confusion reigning, Kuwait's international money network is already grinding to a halt. In quick order, Kuwait's secretive London-based money managers have been shoved into a kind of twilight zone. Take St. Martin's Property Corp., developer of the huge London Bridge City office complex along the River Thames. Future financing for Kuwaiti-financed British developments and expansion on the Continent, insiders observe, remains highly uncertain. The asset freeze also complicates life for heretofore aggressive Kuwait Petroleum Corp., owner of 6,500 gas stations across Europe. "Everywhere they turn, there's a massive bloody obstacle," says British-based oil consultant Humphrey Harrison.

The asset freeze isn't enough by itself to roil world financial markets. But with Kuwait investing 10% of its annual oil revenues before the invasion, the money will still be sorely missed. Sharif Ghalib of Washington's Institute of International Finance estimates $15 billion to $20 billion has gone into U. S. stocks, bonds, and real estate, while similar amounts have poured into Britain and Japan.

In West Germany, the Kuwaitis have major stakes in auto and aviation giant Daimler Benz, chemical powerhouse Hoechst, and trading company Metallgesellschaft. In addition to buying Mobil Corp.'s Naples refinery and its 2,000 Italian gas stations, the Kuwaitis recently picked up stakes in German retailer Asko and in one of Italy's Agnelli family holding companies, IFIL.

EMPIRE'S END? Most of Kuwait's U. S. assets are run by Citibank, J. P. Morgan, and Morgan Stanley. Sources close to the London-based Kuwait Investment Office say the three managers are seeking permission from the Treasury Dept. to continue trading their Kuwaiti funds. Gains would be put in frozen accounts under Washington's control.

But these are just holding actions. Unless things revert to normal soon, the Kuwaitis' role as one of the most influential forces in the markets will be eclipsed. "A hell of a lot of investment will be gone with them not there," says London money manager Tom Ferguson, who works for some Kuwaiti royal family members. And faced with a thicket of blocked accounts and regulatory scrutiny, Kuwaiti rulers may never be able to fully recover their $100 billion nest egg.

By Richard A. Melcher, with Mark Maremont, in London, William Glasgall in New York, and bureau reports

FILLING UP AT A KUWAITI GAS STATION IN BRUSSELS

KUWAIT'S MAJOR INVESTMENTS

Company	Industry	Percent ownership	Value Billions
KUWAIT PETROLEUM Europe	Refining	100.0%	NA
SANTA FE INTERNATIONAL U.S.	Oil, drilling	100.0	$2.5*
BRITISH PETROLEUM Britain	Oil	9.8	3.5
MIDLAND BANK Britain	Bank	10.5	0.4
ST. MARTIN'S PROPERTY Britain	Real estate	100.0	1.5
HOECHST W. Germany	Chemicals	25.0	2.4
DAIMLER BENZ W. Germany	Autos	14.0	3.5
TORRAS HOSTENCH Spain	Chemicals	72.0	3.0
ARABIAN OIL Japan	Refining	10.3	0.4
STOCKS AND BONDS			40.0
BANK DEPOSITS, GOLD, AND CURRENCY			22.6

*1985 acquisition price NA = not available

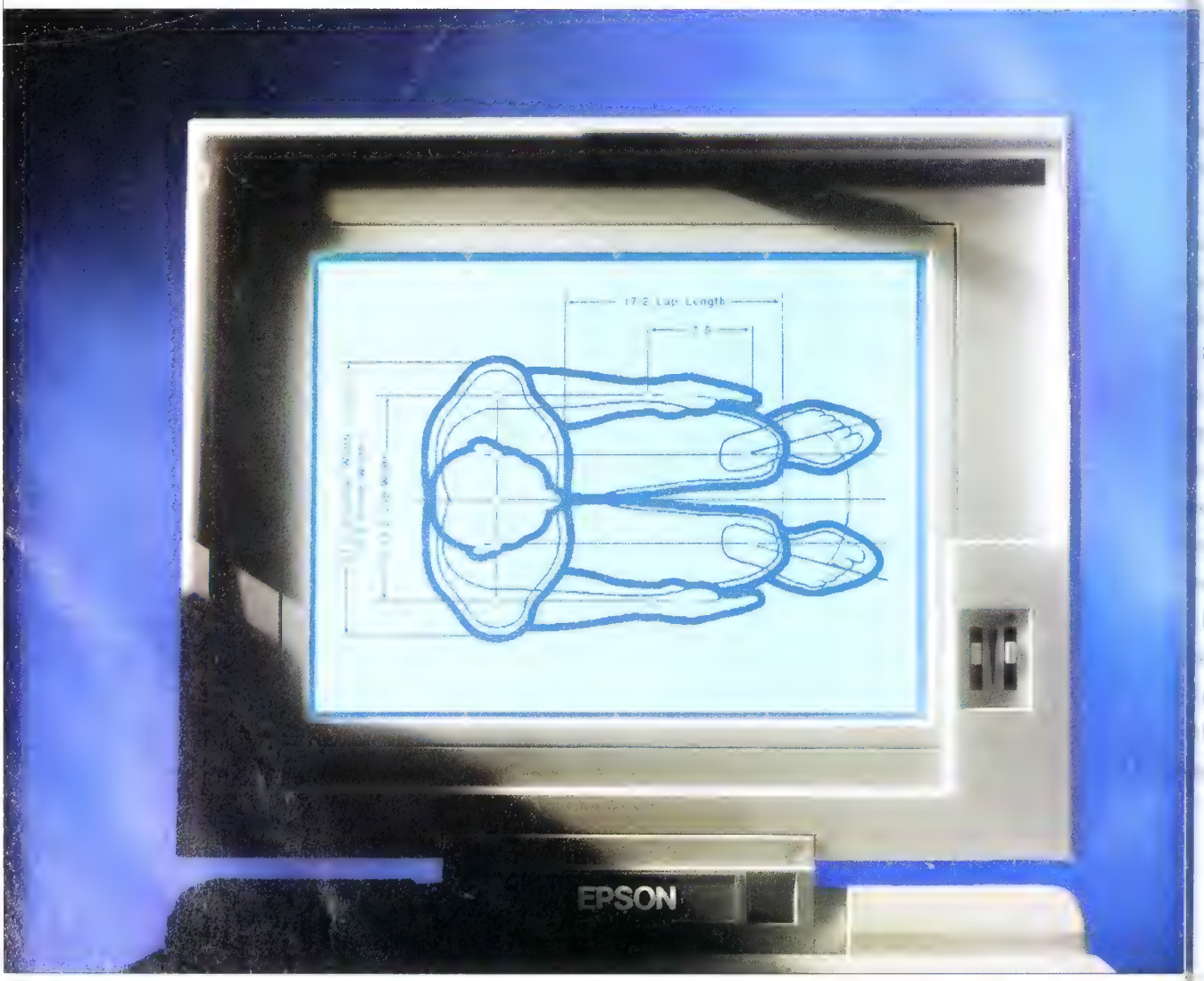
DATA: COMPANY REPORTS, BANK FOR INTERNATIONAL SETTLEMENTS, INTERNATIONAL MONETARY FUND, BW ESTIMATES

CAMEONI/SOPRESS

A laptop designed

that while you

your lap will stay



*Third-party drive port available from Manzana Microsystems, Inc. Epson is a registered trademark of Seiko Epson Corporation.

ith the knowledge

eeds may expand,

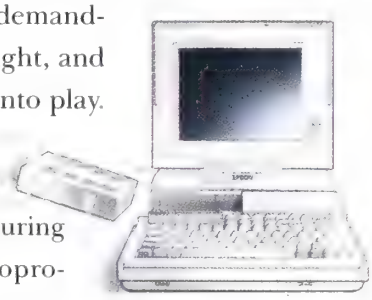
tty much the same.

Introducing the Equity LT 386SX Laptop

Adding power, speed and peripherals to a ıersonal computer is a constant test of design ınovation.

Configuring a *laptop* to meet expanding eeds becomes an even more demand-ıg challenge because size, weight, and attery life come dramatically into play.

Epson® engineers have ıet that challenge with ıeir new Equity LT 386SX, featuring ne of the most powerful microprocessors available in a battery-powered ıptop. It is a design of both distinctiveness and common sense.



Epson's unique, removable hard drive: key component of the most flexible laptop ever made.

Epson's Datasafe hard drive can be removed, ıaking it easy to transport, or store separately ɔr added security. With an optional* drive port, ıe hard drive can plug directly into a desktop ɔmputer. It offers a choice of 20 MB or 40 MB capacity, and a shock indicator that alerts the user to the occasional hard knock.

The modular design of Epson's entire laptop series suggests a new standard for customized performance. The user can easily install or remove options such as a modem, extended RAM, external keyboard, or 2/3 length industry standard card. The VGA screen can also be removed or left in place when using an external monitor.

The Epson laptop indicates its own vital signs—battery life, speed, and disk drive in use—on a unique LCD status bar, and even has the good sense to turn off its own screen and hard drive when not in use.

The LT 386SX offers a degree of speed, power and flexibility once limited to desktop computers. In fact, there is one feature of this remarkably engineered bit of technology that a desktop can only envy. Its size.

Engineered For The Way You Work. EPSON

)0 Epson America, Inc., 2780 Lomita Blvd., Torrance, CA 90505. **(800) 922-8911.**

AUTOS

FOR THE UAW'S YOKICH, GM TALKS MEAN AN OPPORTUNITY TO DEMONSTRATE LEADERSHIP

IT LOOKS AS IF THE UAW IS DRAWING A BEAD ON GM

Politics are dictating the union's choice of a pattern-setting strike target

When it's time for the United Auto Workers to pick a strike target, the Big Three auto makers usually become as shy as the wallflower at a high school dance. Not this year. As the union ponders which company to negotiate with first—and thus set the industry pattern—when its contracts expire on Sept. 14, both Ford Motor Co. and Chrysler Corp. are virtually begging to dance. Chrysler officials even went so far as to hand UAW President Owen F. Bieber a map marking the route from the union's headquarters in Detroit to the company's offices nearby.

But the UAW instead has its eye on General Motors Corp. Although GM has remained the coy one of the bunch, the union, partly for internal political reasons, is leaning heavily toward it. Ironically, while this could mean that Ford workers will get less than they might otherwise, GM may wind up better off. "They could get the best agreement at Ford," says Harry C. Katz, a Cornell University professor specializing in labor relations. "But I think in the end, politics will win, and they will go to GM."

Chrysler and Ford want to be the UAW's target for diametrically opposed reasons. Chrysler, quite simply, wants a break. Sales of the company's cars and light trucks skidded 15% in the first seven months of this year, while the industry dipped 3.5% overall. In this context, management fears that if Chrysler doesn't go first, it could be hurt by a generous agreement the union might get from its rivals. In addition, Chrysler has a higher percentage of retirees, which means it has proportionally higher pension and health care expenses. Its total labor costs run $33.16 an hour, vs. $30.98 for Ford and $29.50 for GM. Chrysler wants to address this disparity.

IDLE PLANTS. Ford's eagerness stems from its role as leader of the pack. Although the company's market share has slipped a bit this year, to 24%, it remains the healthiest of the Big Three. Analysts think Ford's plants still run at about 9[illegible]% of capacity, compared with just 70% [illegible] GM. So Ford probably could handle a modest drop in sales during the ne[illegible] three-year contract without being forc[illegible] to lay off union workers. As a resu[illegible], Ford could offer the kind of airtight [illegible] security that is the UAW's top priorit[illegible]

> No matter which company the UAW picks, there's one thing labor and management agree on: Neither can afford a strike

But choosing a target is a politi[illegible] exercise as well as an economic one. [illegible]nest Lofton, the union's vice-president [illegible] charge of Ford workers, only recen[illegible] took that job and has never negotiate[illegible] national contract. What's more, Steph[illegible] P. Yokich, who recently took over t[illegible] union's GM department, is Bieber's lik[illegible] successor. And he sees this as a cha[illegible] to demonstrate his leadership.

If the union does choose GM, the ta[illegible] are likely to be tough. Many of t[illegible] union's 350,000 workers there are itchi[illegible] for a fight. They feel the company [illegible]neged on a 1987 promise not to close a[illegible] more factories. GM says the four pla[illegible] that have been shuttered since th[illegible] have merely been "idled," with empl[illegible]ees laid off indefinitely. But the prosp[illegible] of these plants reopening is slim. [illegible] Aug. 8, workers at a parts plant in Fli[illegible] Mich., went on strike over job losses i[illegible] local dispute that could shut down GM[illegible] North American assembly plants.

EVERYONE LOSES. While GM may wish [illegible] avoid a fight, the company can ill aff[illegible] to let Ford set the industry pattern. [illegible]dustry observers believe that GM m[illegible] close more plants to reduce its curre[illegible] overcapacity. Some Wall Street analys[illegible] think GM eventually will be forced [illegible] shut as many as four more plants, [illegible] top of the four already idled ones a[illegible] another due to close later this ye[illegible] Ford, with its lean operations, co[illegible] agree to a total ban on plant closin[illegible] that GM would be hard put to match.

No matter which company the U[illegible] picks, there's one thing labor and ma[illegible]agement agree on: Neither can afford [illegible] strike. In the past, if the union stopp[illegible] work at one of the Big Three, the oth[illegible] two usually benefited. But Japanese c[illegible] makers now boast enough "transplan[illegible] capacity to build more than 2 milli[illegible] vehicles in North America. If there's [illegible] strike, sales "will go to the transplan[illegible] and won't return," says a top U. S. au[illegible] executive. In that case, the compa[illegible] shrinks, and the union loses more job[illegible]

UAW officials say the union will a[illegible]nounce its strike target toward the e[illegible] of August. Insiders believe they prob[illegible]bly will go with GM unless it signa[illegible] strong resistance in the prelimina[illegible] talks already under way. GM may n[illegible] like that. But unless it wants to stand [illegible] and watch Ford call the tune, GM mig[illegible] as well step out onto the dance floor.

By David Woodruff in Detro[illegible]

.. A. GEAR IS TRIPPING)VER ITS SHOELACES

ıventory, accounting, and ad woes may drag the shoemaker down

Unstoppable." That's the word emblazoned across billboards, magazine ads, and television mmercials featuring actress Priscilla esley and quarterback Joe Montana. ıe pitch is for L. A. Gear's spangled eakers. But it could just as well have scribed the upstart sneaker maker it-lf, founded by Chairman Robert Y. eenberg.

A former hairdresser and roller-skate ndor on Venice Beach, Calif., Green-rg brilliantly exploited the 1980s craze athletic shoes. He used slick show-ınship to boost sales at L. A. Gear Inc. ›m $11 million in 1985 to $617 million t year. And an admiring Wall Street shed its stock price from less than 3 a mid-May high just above 50. The :ret: a savvy mix of flamboyant les, sexy ads, and more than a few gressive financial tactics.

Suddenly, the formula seems to ʔe lost its punch. As fickle teens of the Los Angeles-based sneaker ker's glitzy fashions, sales growth lowing dramatically (chart) despite ıvy discounting that has ravaged fit margins. Worse yet, the liber- that L. A. Gear has taken in ac-nting for inventory and advertis- costs may soon come back to ınt it. And its $20 million deal with singer Michael Jackson to market ne of shoes and clothes is stum-ıg even as the launch begins.

.. A. Gear turned to Jackson after ne endorsed by retired basketball at Kareem Abdul-Jabbar fizzled. en second-quarter profits dove , company executives promised t Jackson's pricey new shoes ıld rev up sales and profits in the ical back-to-school season. Accord- to Sandy Saemann, L. A. Gear's keting chief, Jackson provides ded visibility and credibility" with tomers.

NE-BUYING.' The key to the Jack-blitz was linking ads for the es to the singer's first album since l in 1987. But the album, which first due out in early 1990, won't stores for at least several more ıths. So L. A. Gear will have to ke do with a 30-second commercial has none of Jackson's flashy mu- and only a brief close-up of his .

or a company that prides itself on canny marketing, the choice of Jackson seems odd. He was hot in 1984, when he did a TV spot for Pepsi. But since then, teens seem more interested in reports of Jackson's plastic surgery and his purchase of the Elephant Man's skeleton. "Once he got into the bone-buying, it turned some people off," says Philip B. Dusenberry, chairman of ad agency BBDO and the architect of Jackson's Pepsi campaign.

What's turning off Wall Street now is L. A. Gear's margins, which shrank to 35% in the May 31 quarter from 43% a year earlier. The No. 3 sneaker maker blames the decline on greater reliance on sales of lower-margin apparel and of shoes abroad. It has also had to slash prices to build market share and hang on to shelf space in a weak retail market. The company's $80 Kareem Abdul-Jabbar basketball sneakers, for example, have been turning up for $29.99 at Big Five Sporting Goods stores in Los Angeles. Despite these efforts, unit-sales growth of L. A. Gear's bread-and-butter domestic business dropped sharply in the last quarter. Its share price now languishes around 20.

'DOUBLE HIT.' But that's only the start of L. A. Gear's woes. Aggressive accounting that helped the company show a steady stream of profits could backfire now. Unlike other sneaker makers, L. A. Gear doesn't record advertising costs as they're spent. Instead, it spreads them out over the year, concentrating the biggest slug of costs in periods that are expected to have the highest sales and profits—often the back-to-school quarter. As a result, L. A. Gear has $9.3 million in deferred advertising costs to expense by yearend, compared with $800,000 at this time last year. "If they miss their sales estimates, they're going to have a double hit," says Joseph Feshbach, one of the many short-sellers betting that L. A. Gear's share price will plunge further.

FUZZY IMAGE: WILL A MICHAEL JACKSON LINE SELL?

Massive inventories are another pitfall. Unlike Nike and Reebok International Ltd., which stock shoes based on future orders, L. A. Gear keeps huge numbers of shoes on hand to ship as orders come in. And the value of the company's inventory has swelled to $184 million—up 32% in six months. Shoes that don't sell must be written off. "Any kind of sales slowdown could have a substantial impact on profitability," says Feshbach. Rival Nike learned that lesson in 1987, when excess inventories helped slash profits by 40%.

Wall Street investors aren't the only ones dumping L. A. Gear stock. Seven of the company's current and former executives have unloaded more than $21 million worth since mid-1989. Of those seven, three are no longer with the company.

The company insists it's on the rebound, and that Jackson will help L. A. Gear strut its way to the top of the sneaker business by next year. One thing L. A. Gear and Chairman Greenberg have never lacked is confidence. But nowadays, that's clearly not enough.

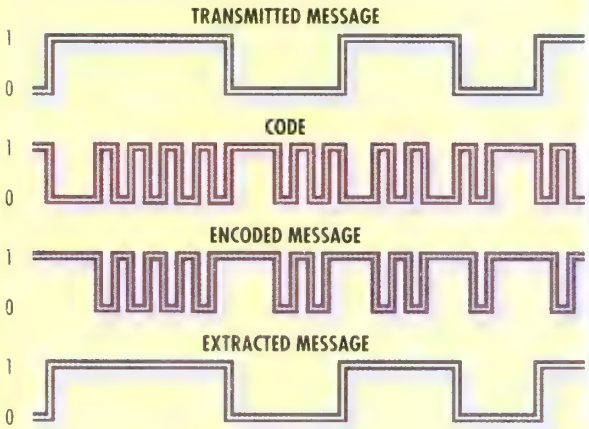
By Kathleen Kerwin in Los Angeles, with Mark Landler in New York

TELECOMMUNICATIONS

BOLTING FROM THE CELLULAR HERD

An uproar as Nynex and Ameritech opt for a maverick technology

It wasn't supposed to happen like this. Facing a capacity crunch in its big urban markets, the cellular phone industry knew it needed new technologies to keep growing. Its trade group, the Cellular Telecommunications Industry Assn., had endorsed a digital technology that, beginning in 1991, would allow for three to six times as many subscribers.



A digital message (top) is combined with a code, producing an encoded message that's sent over the air. A cellular phone that knows the code can extract the message from the background noise. The coding permits phone calls to share the airwaves without interfering with each other

DATA: QUALCOMM INC.

All that remained was for suppliers, including Motorola Inc. and American Telephone & Telegraph Co., to start building transmitters and phones.

Then, on Aug. 2, two of the largest cellular operators, Nynex Mobile Communications Co. and Ameritech Mobile Communications Inc., upset those neatly laid plans: They announced plans to adopt a more ambitious digital system developed by Qualcomm Inc., a $31 million San Diego-based upstart whose founders made their mark by inventing scrambling techniques for pay-TV. Privately held Qualcomm's cellular technology, which many industry experts thought would take another decade to perfect, could accommodate 10 to 20 times as many subscribers as current systems handle.

The last-minute appearance of a rival technology caught the cellular industry off guard and is causing fits at the CTIA. The group has spent the past two years rallying the U.S. industry around its system. Now, even if the industry agreed to switch—an unlikely event given the investments that Motorola and others are making in the original technology—it could suffer from delays. "Our problem here is that our larger markets, and some of our medium-size markets, can't wait," says Robert W. Maher, president of CTIA. "They need something in 1991."

Despite the support from two giant network operators, questions remain about the viability of Qualcomm's digital system. It was tested last year in San Diego and this February in New York, but the trial involved only two vans driving back and forth between two adjacent cells. The critical electronic switching system, which captures and routes the calls, hasn't been developed yet. AT&T has agreed to build a switch for a Nynex Qualcomm system—in addition to switches for the CTIA format.

Before the cellular industry decided on a digital standard, Qualcomm had not put forth its technology, which is variously called CDMA, for code division multiple access, or spread spectrum (diagram). It works by spreading all signals across the same broad frequency spectrum and assigning a unique code to each. The dispersed signals are pulled out of the background noise by a receiver that knows the code. Although the technique was first developed in World War II to protect radio communications, until now its complexity has limited its use to expensive military gear. "The industry considered that it was too far away, and perhaps wouldn't even work," says Qualcomm founder and CEO Irwin M. Jacobs. In early 1989, the CTIA adopted time division multiple access (TDMA), which works by interspersing tiny bits of data from many calls on one channel. Before TDMA got the nod, Motorola and AT&T had lobbied for a third digital scheme called FDMA (frequency division multiple access).

> If the split proves permanent, traveling between cities may mean using two different kinds of phones

HARD TO IGNORE. "Qualcomm has taken a very expensive, hard-to-implement military system and brought it to the point where it's commercially viable," says Keith W. Kaczmarek, director of advanced technology for PacTel Cellular in Irvine, Calif. PacTel, which hosted Qualcomm's demonstration in San Diego last November, has not yet announced plans for a CDMA service. Ameritech plans called for field trials of the Qualcomm system later this year and installation in Chicago by 1992.

"Tests have proven to some doubters, ourselves included, that the technology works," says Dennis M. Rucker, director of planning and technology development at Ameritech. Nynex says that it will use TDMA for regular cellular phones but will use Qualcomm's technology to build a combination handheld telephone/pager service for New York City by the end of next year.

Support by such major customers is hard for equipment makers to ignore. While affirming its commitment to TDMA, Motorola says it will consider making CDMA gear if a market develops. The $9.6 billion electronics giant has already built CDMA military gear.

If the cellular industry does split over which digital standard to use, the result could be a confusing array of cellular systems and phones. That might make traveling from city to city with one phone impossible—or force consumers to buy more expensive hardware that works in multiple cellular systems. "I think you'll see the industry migrate quickly through TDMA and on to CDMA in the most densely populated urban markets," says Clifford A. Bean, director of mobile telecommunications consulting at Arthur D. Little Inc. "But in smaller markets, TDMA will be cheaper to deploy and may be all they need."

That's an unhappy prospect for an industry that has grown quickly by adopting standards. In fact, in the view of many cellular industry officials, there may be one time when a technological breakthrough came a bit too soon.

By Larry Armstrong in Los Angeles with Lois Therrien in Chicago and Peter Coy in New York

S WASHINGTON GROOMING WATCHDOG FOR INSURERS?

s failures mount, Congress asks if state regulators are up to the job

Most banks have to tolerate Uncle Sam peering over their shoulder. So do securities firms. it the $500 billion commercial insurce business has escaped federal regulion—so far. Pressure is building on pitol Hill to end that state of affairs. Prompted by ever-rising insurance emiums and a startling jump in the mber of failing insurers, lawmakers e attacking on two fronts. In late ne, the House Judiciary Committee ted to repeal the industry's 45-year-old emption from federal antitrust laws. was the first time such a l cleared committee in eier house, though it faces a ody fight this fall on the use floor. A similar bill is nding in the Senate. And on pt. 10, Representative John Dingell (D-Mich.), chairn of the House Energy & mmerce Committee, is heduled to begin hearings it could lead to broad federoversight of property and sualty insurers.

W SPECTER. What's driving e congressional action is the ception that state insurce regulation hasn't rked. In the 1970s, an avere of about three propertysualty companies failed h year. In the latter half the 1980s, the average nped to 17—and in the first f of this year, 11 compas went under. Moreover, failures have grown dratically in size. A handful of ent collapses, including Los Angeles-based comies, Mission Insurance Co. d Transit Casualty Co., e involved billions of dols in potential claims. Din l says his two-year probe the failures of Mission l Transit and other smaller urers uncovered "the same tern of reckless and irreonsible behavior" found in S&L mess.

There's an important differe, though. The state funds up to pay the claims that ied insurers leave behind nerally are in solid shape. But one big collapse could force many funds to borrow heavily to meet their obligations, leading indirectly to a steep rise in premiums.

That's not enough to convince the industry that it needs federal regulation. Insurers have marshaled their considerable resources against the antitrust bill, which would outlaw such common industry practices as sharing rate information and loss histories. Their strategy is to let congressional inertia work in their favor by delaying a floor vote until after the summer recess. "There are many, many ways to win battles in this business, and a ticking clock is one of them," notes Paul A. Equale, chief lobbyist for the Independent Insurance Agents.

Without specific legislation to attack, the industry is taking a more conciliatory approach toward Dingell. Officials of the American Insurance Assn. have met with him to explore ways to improve state regulation. Among the ideas under study are the creation of a federally chartered, self-regulatory organization for the industry, along the lines of the securities industry's, and uniform minimum financial standards. "To me, it doesn't matter who regulates insurance as long as it's done better than it is now," says David A. Olsen, president of insurance brokers Johnson & Higgins.

WHO'S COUNTING? For brokers such as Olsen, the insolvency problem is a double whammy: First, the companies he represents lose business to competitors who underprice their policies. Then, when a cut-rate insurer goes belly-up because its premium income doesn't cover its claims, Olsen's companies have to up their contributions to the state guaranty funds.

Some state regulators question whether the feds' presence will be much help. "With the S&L situation, you had a mix of [federal and state regulators], and each thought the other was watching the store while it turned out nobody was," says New York Insurance Superintendent Salvatore R. Curiale.

But state authorities are fighting stiff political headwinds. To forestall more aggressive federal efforts, the National Association of Insurance Commissioners took action in June to strengthen the industry's financial-reporting forms and establish a process to certify the adequacy of state solvency standards. State regulators also are under the gun to adopt a rule requiring independent audits of financial statements and loss reserves, a practice that fewer than half the states now follow. "If the states do not come through, the federal government and Congress will," warns National Association of Independent Insurers President Lowell R. Beck.

Beck's assessment isn't lost on the industry. With the nation mired in the thrift mess, Congress doesn't want another financial crisis on its hands.

By Tim Smart in Washington

PROPOSED SELF-HELP FOR INSURERS

Insurance industry proposals for dealing with insolvencies—and with a regulation-minded Congress

FINANCIAL OVERSIGHT Target periodic financial exams to those companies most in need of scrutiny, rather than attempt to review the entire property-casualty industry

LEGAL STREAMLINING Develop and put into place a uniform law governing the liquidation of insolvent insurers. Current liquidation law varies widely from state to state

FINDING A WATCHDOG Push for federal legislation that would establish a self-regulatory organization for the insurance industry, using the securities industry as a model

REPAIRING THE SAFETY NET Exclude large business policyholders from coverage by the state guaranty funds

DATA: BW

In Business This Week

EDITED BY HARRIS COLLINGWOOD

CAN BUSINESSLAND BATTLE BACK?

▶ Businessland Chief Executive David Norman may be sitting in the computer industry's hottest hot seat. Norman stunned investors on Aug. 6 by announcing that the 109-outlet computer retail chain lost $21.5 million in its fourth quarter, bringing to $23 million the total loss for the fiscal year ended June 30. Wall Street hammered Businessland on the bad news: Its shares fell 58% that day, to 2⅞. The stock recovered a bit by Wednesday, to 3¾, up ⅜.

Norman blamed the loss on high costs and an excess of spare parts in inventory. He also had to acknowledge that a new chief financial officer had caught bookkeeping errors. That forced Businessland to restate total losses for the second and third quarters from $2.9 million to $5.8 million. Meanwhile, its Computercraft mass-market unit lost $2 million in the fourth quarter. The company's international operations lost $4 million more.

For now, Businessland directors are backing the 54-year-old company founder, but Norman will have to slash costs fast: The fiscal 1990 loss violates the terms of $50 million in privately held debt. To help fix things, Businessland has developed a new computer system for inventory tracking and is closing 15 retail outlets by October. Directors also want Norman to move quickly to fill two top sales and marketing slots left vacant since June.

UPSTART JAPONICA WINS ALLEGHENY

▶ Allegheny International's Byzantine bankruptcy is coming to an end. On Aug. 3, the U. S. Bankruptcy Court confirmed a plan that gives control of the Pittsburgh consumer-appliance company to upstart Japonica Partners. During a hostile 30-month court battle, management, creditors, and a steady stream of bidders wrangled over 10 separate reorganization plans.

Under Japonica's terms, shareholders and creditors will get cash and securities valued at a total of about $665 million. Japonica, formed three years ago by two former Goldman Sachs merger specialists, Paul Kazarian and Michael Lederman, must also line up a working-capital credit line of $110 million. The deal is scheduled for completion on Aug. 15, when Japonica will install a new board and management and rename its prize Sunbeam/Oster.

BUT WILL IT MAKE THE SAME SPLAT?

He hasn't exactly reinvented the wheel, but oil refinery worker Ted Skup has built a better spitball—and he expects germ-conscious Americans to beat a path to his door. For about $1.69 a pop, Skup is hawking a quarter-ounce package of a nontoxic, nonstaining putty that folks can shoot, flick, or just plain throw at their target of choice. Why replace the venerable spit-drenched projectiles? Says Skup: "They're too unsanitary. We've cleaned up the act."

The tireless inventor figures he's definitely onto somethi He thinks he'll rack up sales of over $1 million by Christ and predicts the putty, called Spit Wads, will become as bi fad as the Pet Rock. So far, says Skup, the majority of buy are businessmen. "It's a great way to relieve stress," he sa Not to mention a surefire way to impress the boss with y maturity and professionalism.

PFIZER'S HEART PROBLEM

▶ Bowing to pressure from a consumer advocate group, Pfizer subsidiary Shiley agreed on Aug. 7 to set up a registry to identify recipients of its controversial Bjork-Shiley heart valves. Shiley will notify those inscribed on the registry of possibly life-threatening malfunctions in its "60-degree convexo-concave" mechanical valves.

The Public Citizen Health Research Group filed suit in California, where Shiley is based, to mandate a registry. But it was dismissed in May. So last month the group petitioned the Food & Drug Administration to order Shiley to contact roughly 56,000 valve patients worldwide. Pfizer faces huge potential liabilities because of faulty valves. At the beginning of this year, at least 389 valves had broken and 248 people had died.

DEFENSIVE SPIN-OFF AT EMERSON

▶ Emerson Electric is the latest defense contractor to confront the shrinking of the Pentagon. On Aug. 7, the giant St. Louis manufacturer announced plans to spin off its five defense subsidiaries into a separate company with sales of $600 million and 6,000 employees. The units, wh include defense electron maker Hazeltine and E tronics & Space, an aerosp outfit, accounted for 8% Emerson's $7.1 billion in 18 sales and a mere 1.5% of $954 million pretax income

Emerson plans to distrib shares in the new defe company to its shareholdr on a pro-rata basis. The co pany hopes to complete spin-off, which will includ dividend payment to Em son, by the end of its fis year in September.

ED BRENNAN ROLLS UP HIS SLEEVES

▶ In a dramatic shake-up Sears Roebuck, Chairman ward Brennan is taking o direct control of the com ny's floundering mainstay, retailing operation. He places merchant group Michael Bozic, who was moted to the new post president and chief operat officer at the retail unit. clear that Brennan belie Sears is in need of a lar scale overhaul. The m comes just days after the Store announced it had ter nated talks with archri Montgomery Ward ab "joint opportunities."

IT'S NOT SCIENCE FICTION ANYMORE.

All of a sudden, it's science fact. Motorola has added enhanced features to its numeric display pager and combined it with a digital watch to create the personal communications tool for the 21st century. We proudly introduce the Motorola Wrist Watch Pager.

Not only is it a first of its kind, but it's among the smallest and lightest (2.1 ounces) pagers of any kind.

And, of course, this new wrist pager offers the same quality you've expected from Motorola pagers for over three decades.

After all, we manufacture more pagers than anyone else in the world. And we manufacture them for a wide variety of lifestyles. No matter what style your business life assumes, there's undoubtedly a model that meets your needs.

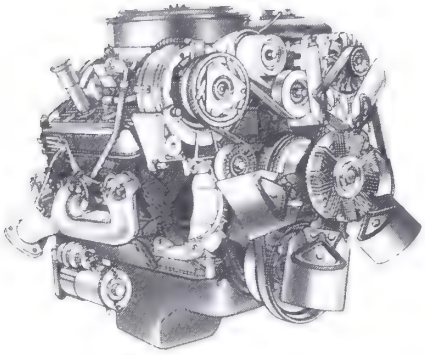
But Motorola isn't stopping here. Because we realize that the solutions to the communications needs of today lie in the technologies of tomorrow.

MOTOROLA

THE NEW MOTOROLA WRIST WATCH PAGER

and Motorola are registered trademarks of Motorola, Inc. ©1990 Motorola, Inc.
Paging Division: 1500 N.W. 22nd Avenue, Boynton Beach, FL 33426. Phone: 407-364-9700

Two Powerful Reasons To SmartLease An S-15 Jimmy.



4.3-liter Vortec: Most V-6 horsepower in its class.

A new 1991 S-15 Jimmy has a standard 4.3-liter Vortec engine, an engine that gives you the most V-6 horsepower and torque available from any truck in its class. That's more horsepower for highway driving, off-roading, and a 5,500-lb towing capacity.*

And right now, for a limited time only, you can get a SmartLease summer special on a 1991 S-15 Jimmy. SmartLease can let you drive a lot of truck for your money. And SmartLease can give you low monthly payments once you've decided on the right truck for you.

For example, for only $298.72 a month, you can lease an S-15 Jimmy 2-door 4X4 that carries a manufacturer's suggested retail price of $19,542.**

GMC TRUCK SMARTLEASE by GMAC

SmartLease:℠ The power to get an S-15 Jimmy 2-door.

Your dealer can also show you additional SmartLease programs available on other trucks in the GMC Truck lineup.

Get the most truck for your money. Look into getting a SmartLease from your GMC Truck dealer.

For a catalog and the name of your nearest dealer, call 1-800-VALUE90 (1-800-825-8390) today.

*In a properly equipped four-wheel-drive model, including trailer, passengers, equipment and cargo
**48-month lease with total monthly payments of $14,338 56 $3,115 72 due at lease signing (Includes first month's payment and a refundable security deposit of $325) Option to purchase at lease end for $7,341 66 Purchase option price is fixed at lease signing and varies by model, equipment level, usage and length of lease Lessee responsible for excessive wear and use, and mileage over 60,000 miles at $ 10 per mile Tax, license, insurance, title fees, destination and other options additional Subject to approval by GMAC You must take retail delivery out of dealer stock by September 26, 1990 Payments may be slightly higher in Alabama, Arkansas, Oklahoma and Texas See your participating dealer for qualification details

GMC TRUCK

It's not just a truck anymore.®

© 1990 General Motors Corporation
All rights reserved.
Jimmy is a registered trademark of General Motors Corporation
It's not a together buckle up.

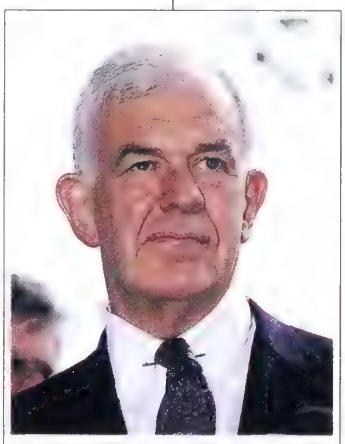
EDITED BY STAN CROCK

THIS CAMPAIGN REFORM BILL WAS BORN TO BE VETOED

Just before they fled the heat of Washington for their August recess, lawmakers mustered an ethical fervor not seen in these parts since the post-Watergate reform era. ith great fanfare, both the House and Senate passed major erhauls of the loophole-ridden campaign-finance laws, prom- ng an end to the cash-for-votes abuses of the past.

But like many of Washington's great crusades, there is uch less to the new reform wave than meets the eye. The ection-year showmanship was intended to convince voters at politicians want to stanch the flood of special-interest oney that has produced such embarrass- ents as the Keating Five. But here's the rub: emocrats pushed through the bills despite rong Republican disagreement over how to ange campaign financing. The Democratic ajority wants reform that doesn't help chal- igers; the GOP backs changes that do. So, ere's little chance the bills will pass muster the White House. "These bills were not itten to attract the President's signature," ncedes a Democratic aide.

C CAPS. Both the House and Senate bills are to bait because they would impose spending its that would dim the prospects of chal- igers, who already are underdogs. Fully % of the House incumbents who ran in 1988 n, raising $115 million from political action mmittees to their challengers' $17 million.



FOLEY: SHIELDING INCUMBENTS

The spending limit on the Senate would vary between 50,000 and $5 million, depending on a state's population. use races generally would be capped at $550,000. Both bills uld curb PACs, with the Senate bill banning them outright. d both would provide free broadcast time and discounted stage to candidates who stay within the spending limits.

What particularly irks the GOP about the Senate bill are two t-minute additions that would complicate life for Republi- is challenging the 11 Democratic freshmen up for reelection 1992. One provision would allow the 34 incumbents running that year to exempt their $16 million in pre-1991 expenditures from the spending limit. The other would permit senators to divert up to $300,000 from office expenses to their campaigns.

Republicans are equally livid about the House measure, which Speaker Thomas S. Foley (D-Wash.) rammed through to passage. The House bill, while seeming to rein in PACs, is in fact designed to let Democrats receive more PAC money. The measure limits total PAC donations to a candidate to $275,000, but Democrats in 1988 averaged less than that. What's more, most PACs would be limited to $2,000 in contributions to a candidate, vs. the current $10,000. But the cap would still be $10,000 if the PAC's members make contributions of $240 or less. This provision would hobble corporate PACs while giving free rein to Democratic-leaning labor PACs, which rely on smaller donations.

R. Marc Nuttle, executive director for the National Republican Congressional Committee, says GOP challengers for House seats this year must spend at least $600,000—the estimated cost of overcoming a two-term incumbent's name-recognition advantage—while the average Democrat has to spend only $400,000 to get reelected. "This is the most partisan piece of legislation I've ever seen," Nuttle declares. Common Cause President Fred Wertheimer remarks with some understatement: "This is not real reform."

Of course, President Bush won't mention politics when he vetoes the bill. Instead, he'll note the Justice Dept. finding that the "voluntary" spending limits in the measures infringe on candidates' free-speech rights.

So instead of a cleanup, it will be unseemly business as usual on the campaign trail. A river of special-interest money will flow into incumbents' coffers. And challengers' odds of winning a congressional election will remain a bit worse than lightning striking the Capitol dome.

By Paula Dwyer

PITAL WRAPUP

RADE

Special Trade Representative Carla A. Hills lost an internal Adminis- ation battle over opening talks with exico on a Free Trade Agreement is year. But she could be the victor in e end. Hills argued that the 102-na- on trade talks in Geneva known as e Uruguay Round should be the Ad- inistration's sole priority. But strong exican pleas and pressure from Com- erce Secretary Robert A. Mosbacher d Secretary of State James A. Baker I persuaded President Bush to an- unce on Aug. 8 that he plans to be- n formal talks with Mexico. Congress s 60 "legislative days" to authorize the talks, though, and its truncated election-year schedule will delay things. Hills says the Mexican talks may not actually begin until next June, long after the December deadline for an agreement in Geneva.

IMMIGRATION

Immigration reform is moving through Congress once again. The House is expected to take up a bill next month that would raise the annual immigration cap to 775,000 from 500,000 and make it easier to admit skilled foreigners to fill jobs in labor-short industries. The Senate passed a less ambitious bill last year, and a conference to iron out differences will be difficult.

BANKING

Banks staggering under souring real estate loans and higher capital requirements have to brace themselves for more bad news. The Senate Banking Committee is considering legislation to boost the premiums banks pay to support the federal deposit insurance fund. The General Accounting Office is likely to sound dire warnings about the fund's solvency this month when it releases a long-awaited audit of the Federal Deposit Insurance Corp. While the FDIC has not yet officially endorsed a rate increase, it admits that it will be in trouble if a recession tips some large banks over the edge.

STEIN-AMP/SABA

Ten of Europe's toughest critics awarded Wyse their top priz
Over 3 million even tougher critics awarded us their busines

The Wyse Model 3225, winner of Europe's CeBIT award for design excellence. Novell certified as a network server, this 25 megahertz 386 runs today's demanding business software with brisk efficiency.

[1]Source IDC 1989 Terminal Census

WYSE is a registered trademark and Model 3225 is a trademark of Wyse Technology Inc. All other trademarks are property of their respective owners. © 1990, Wyse Technology Inc

The world's largest computer exposition is CeBIT, held in Hannover, Germany. It is the premier international showcase for the latest and finest computer products from around the world. And in 1990, the European computer experts who judge at CeBIT awarded their top **THE WORLD IS GETTING WYSE.** honor for design excellence to a Wyse personal computer, our Model 3225.

Several PC brands are better known than Wyse to the world at large. But it isn't particularly surprising that one of ours was selected for this prestigious award. Wyse design expertise has been winning a following among computer professionals for nearly a decade. And today, we have an installed base of over 3,000,000 terminals and personal computers. Our design goal always is to add value. The ingenious design of our terminals, for example, gives them more features, styling and ergonomics than the competition. For less money. As a result, Wyse is the largest independent maker of computer terminals! Similarly, our new family of UNIX multiprocessor systems offers better price/performance ratios than any similar line. Plus the investment protection of expandability. You'll find such value reflected throughout our family of PCs, as well. All are extensions of the design philosophy and capability honored by the CeBIT judges. To learn more about their winning ways, just call 1-800-438-9973.

WYSE

1 800 GET WYSE

THE ROCKET SHIP TO REUNIFICATION IS RATTLING KOHL

Fallout from the economic crisis in the East threatens to wreck his reelection plans

After each visit to West Germany to prepare for reunification, the new leaders of East Germany were handed plastic bags full of texts on how to run a market economy and cab fare vouchers to the airport for the flight home. But by early August, it became obvious that dramatic action was needed to avert economic collapse in East Germany. Both sides decided school was out.

Since East Germany sealed its monetary union with Bonn six weeks ago, its teetering economy has taken a big tumble. To open the way for huge infusions of extra cash now instead of early next year, the East German parliament voted on Aug. 8 to apply for political union with West Germany by Oct. 14, about six weeks ahead of schedule. Because West Germany cannot deny that request, reunification is a fait accompli. West German Chancellor Helmut Kohl wanted pan-German elections held on the very same day, but chances of that now are slim. That leaves him trying to rescue an imploding economy with one hand tied behind his back until a new German government takes power after the Dec. 2 elections. And if the East's economic crisis spills westward, his own job could be in jeopardy.

TIDAL WAVE. In July alone, East German unemployment doubled, to 250,000, and 700,000 people work only part-time. Berlin revealed last week that its budget deficit this year will be $12 billion higher than the $21 billion originally forecast. Meanwhile, West German officials in charge of industrial restructuring say not a single East German company can compete fully in Western markets, dashing hopes that about a third of them could survive without radical surgery. The resulting specter of mass unemployment could easily spark what Kohl fears most: a tidal wave of 16.5 million impatient East Germans pouring into the West.

LEIPZIG RUINS: NOW THE EAST IS ASKING TO SPEED UP REUNIFICATION

Until German-wide elections are held, Kohl can't sweep incompetent East German administrators from power or revamp the legal system that has been a major obstacle to big investments by Western companies. And top West Germans sent in to run East Germany's Treuhandanstalt, the agen charged with privatizing seve hundred giant state-owned co bines, have been unable to galv nize midlevel officials into actic

Breaking up the combines a selling off the pieces was part a strategy to build a thriving n work of small and medium-si businesses, modeled on We Germany's powerful Mittelstan that would jump-start the Ea German economy. But the Tre handanstalt is making painful slow progress. It must nurse companies through a liquidi crunch that has them reeling u der a debt load of nearly $75 b lion. In July alone, the agen doled out more than $6 billion credits just so the compani could meet their payrolls.

At that rate, the Treuhanda stalt will gobble up its entire $ billion budget in five mont without restructuring a sing company. Clearly, the agen will have to ask for more cas and Kohl will have little choi but to sign another check.

BITTER HARVEST. In the rundov East German port of Rostock, the Baltic Sea, it's easy to s why citizens still feel tempted flee. Dole lines are long, and Ci Hall is nearly out of cash. Hu dreds of young Rostock doc workers now work in West Ge many's bustling Bremerhave port. Most still commute ther but many have settled for goo

The mood on East Germany once-prosperous farms in t sweeping Mecklenburg plains, too, is o of anger and helplessness. East Germa Prime Minister Lothar De Maizière government has already slashed massi agricultural subsidies, but it hasn't f lowed through with reforms to break huge state cooperative farms. One ne Sievershagen, for instance, still rais about 6,000 head of cattle and 4,000 pi but hasn't harvested crops from most its 800 hectares of prime arable land.

Missing the harvest is only part of t

ɔuble for villager Richard Wagner, a wering, ruddy-faced 59-year-old whose mily owned some 80 hectares until the rly 1950s. He wants it back, but local ficials and the ministries in Berlin are agging their feet on returning expro- ated land to former owners. "There still a lot of old Communists in the vernment and they are trying, some- w, to hang on to the old order," says agner, angrily shaking a letter from Ministry of Agriculture warning him ainst "thievery" by trying to repos- ss it himself.

DGET BOMBSHELL. The same bureau- tic and political gridlock over owner- p is hamstringing desperate efforts to amp the country's ailing industrial se. Former owners and hundreds of uld-be new investors will not lay out a it until they can be sure that they've good title to East German assets. Of ne 12,000 companies snatched by the mmunists in a final orgy of national- tion in 1972, fewer than 200 have been ided back, although the former own- of 6,000 companies have applied for titution.

The confusion and inefficiency in the st are putting the fiscal thumbscrews Bonn. As the East German parlia- nt voted on Aug. 8, Kohl government icials said that Finance Minister Theo igel would formally withdraw West rmany's $200 billion-plus proposed 1 budget. Waigel refuses to estimate at the real bill for uniting Germany ld be, but the West's budget is cer- to soar. At the same time, Waigel's st German counterpart, Walter Rom- g, dropped a bombshell of his own, hely announcing that East Germa- s newly created states will need near- $9 billion next year, and at least $56 ion over four years, to keep basic vices solvent.

As the unification bill snowballs, hl's chances of a shoo-in victory in cember's elections risk fading. He has eady flirted dangerously with a Bush- promise on taxes, telling a television erviewer that German unity could be anced with existing tax revenues. it promise is looking increasingly d to keep. And it could be politically naging. It hands Kohl's Socialist rival car Lafontaine a potentially lethal apon during the campaign now get- g into full swing.

But Kohl is a shrewd politician. He already tapped into a deep current national pride. If he keeps singing the ne tune, he may yet be able to per- de voters that unity is cheap at the e. It won't be until Kohl is firmly in Chancellor's office for another term t Germans hear the whole truth ut their budget.

'y Igor Reichlin in Rostock, with Gail E. ares in Bonn

SOUTH AFRICA

DE KLERK'S PEACE PUSH GIVES THE WEST A TRICKY CHOICE

Should it reward Pretoria, or keep the sanctions to hold over its head?

Right-wing critics of South African President F. W. de Klerk attacked him for lifting his government's ban on the African National Congress and releasing black leader Nelson Mandela from prison in February. De Klerk had caved in to a terrorist organization, these whites argued.

Now, de Klerk has something to show for his gamble. On Aug. 6, the ANC announced it was suspending its 30-year armed struggle against the white government. It was a symbolic gesture, since the ANC's military campaign has been largely ineffective. The ANC agreed only to a cease-fire, not to disarm itself, in exchange for the release of political prisoners and amnesty for exiles.

DE KLERK AND MANDELA: THE TOUGH PART IS STILL TO COME

But the move still carried political weight, and the battered South African business community hoped the accord would build confidence in a recession-plagued economy. "This is something the South African government wanted very much to demonstrate to its own electorate that they're getting something from the process," says South African specialist Pauline H. Baker, senior associate at the Carnegie Endowment for International Peace in Washington.

NO TIMETABLE. The ANC concession also set the stage for something that would have been inconceivable only a year ago: the government and the ANC talking about a new constitution that enshrines the principle of one person, one vote. Those negotiations will be fraught with tough issues, which is why the ANC says it is not yet time for the U. S. or other Western nations to relax their economic sanctions. Joe Slovo, South African Communist Party general secretary and a member of the ANC negotiating team, said such a time would come only when the process of change is "irreversible."

It's still not clear when that will be. South Africa is a long way from the kind of nonracial democracy that the U. S. Congress demanded when it adopted sanctions in 1986. Laws enforcing residential segregation are not likely to be repealed until next year. The U. S. law also requires that South Africa's state of emergency be completely lifted, and de Klerk has not done that in the province of Natal because of bloody fighting among black groups.

Likewise, the new constitution will be tough to negotiate. De Klerk's National Party wants a government structure that grants major powers to regional governments, a provision that would help safeguard the interests of whites. A black-controlled, central government would be relatively weak. The ANC opposes that formula.

Barring a sudden breakdown in the talks, however, the West's debate over whether to relax sanctions could begin again this fall. Mandela is scheduled to return to the U. S. in October, and de Klerk may visit before yearend. Also in October, President Bush must submit a report to Congress on the progress South Africa is making toward racial harmony. "There is a strong sense within the Administration of wanting to give de Klerk some sense of recognition for the progress he's made," says a U. S.-based South African diplomat. But because of congressional elections in November, any significant easing of U. S. sanctions may not occur until the beginning of the year. That will keep the pressure on old enemies in South Africa to reach new accords.

By Alan Fine in Johannesburg, with bureau reports

EDITED BY PETER GALUSZ

WILL SOLIDARITY SURVIVE LECH WALESA'S HUBRIS?

On a hot Sunday morning one year ago, Solidarity leader Lech Walesa and Prime Minister-elect Tadeusz Mazowiecki embraced in a Gdańsk churchyard as their victory over the Communist government was cheered by thousands of Poles. But now, after holding Poles together for a decade, Solidarity is falling apart. Walesa's stubborn bid to become president is splitting it into two factions that may slow down the nation's efforts to repair its collapsed economy. "For Poles, it is like being the children in a divorce," says Zbigniew Bujak, a leader of the trade union movement.

The unraveling of Solidarity has long been anticipated, but few thought it would come so soon. The schism was touched off in July when Walesa, frustrated by a year of political inactivity, formed Center Agreement, a right-leaning group with populist and nationalist appeal. To pave the way for Walesa's presidential bid, the group wants to renege on a political arrangement Walesa brokered last year that helped end Communist political domination. That deal gave a five-year presidential term to Wojciech Jaruzelski, the Communist general who declared martial law in 1981. Now, Walesa is calling for Jaruzelski's resignation and presidential elections in October.

WALESA: FRUSTRATED BY INACTION

But Walesa's flip-flop has infuriated Solidarity leaders in government who are trying to steer the nation through a painful series of crash economic reforms. They want to maintain Solidarity's current hold on power to keep reforms on track. "It's an artificial split forced by Walesa at a time when Poland needs stability," says Wladyslaw Frasyniuk, a Solidarity chairman who spent time in prison with Walesa. On July 28, he and 200 other Solidarity members formed a second group called Citizens Movement for Democratic Action that is composed largely of intellectuals and parliamentarians. For president, it will probably support Mazowiecki, the cerebral journalist whom Walesa picked last year as Prime Minister.

Already, the split is slowing Poland's reform efforts. The Center Agreement is demanding an immediate purge of ma agers who renounced communism but still run the natio major enterprises. Mazowiecki and his Democratic Action su porters claim that wholesale firings of skilled managers wou cripple the economy. Walesa's group also believes that t current government is too long on intellectuals who belittle t masses. It also is more willing to embrace the powerful Cat lic clergy.

HELMLESS. The political challenge comes just as Mazowiecki preparing a series of complicated pilot privatizations. "It's n possible to snap your fingers and privatize overnight," sa Krzysztof Lis, head of the government's privatization tea Meanwhile, partly in response to Walesa's charge Mazowiecki has sacked three ministers his Cabinet who were formerly comm nists. The turmoil may delay passage key laws covering welfare and tax refor

Solidarity's division into two cam leaves its vanguard role in the Polish lab movement in limbo. The 2 million-memb trade union will have a tougher time ca ing out a new role for itself in Polan new market economy. The unionists a proposing new labor laws, minimum wa levels, and job benefits, but without th old leaders, the effort could falter. "I fear the union is n modern enough or professional enough to stand on its o yet," says Michal Boni, a regional Solidarity chairman.

Meanwhile, Walesa's bid for the presidency may turn i his biggest political blunder. Mazowiecki's government s enjoys broad public support for taming hyperinflation a eliminating desperate shortages of food and other consum goods. Pollsters currently give him a slight edge over Wales who, after a decade as opposition leader, seems unable define a new role for himself as part of the winning team. B if he wants to continue to shape Poland's future, he'll have find that role or fade into history.

By Gail E. Schares in Wars

GLOBAL WRAPUP

MEXICO

With President Carlos Salinas de Gortari's popularity far outstripping his Institutional Revolutionary Party's, he is trying to disassociate himself from the discredited PRI. Salinas spent a week in early August racing through 14 Mexican states, opening schools, drainage systems, and electricity projects in poor neighborhoods. No mention was made of the PRI. In its place, Salinas is selling the concept of Solidarity, the party's new name and the word of the hour.

The opposition National Action Party called Solidarity Week "a paternalistic spending tour," but Salinas clearly meant to generate political momentum. Many speculate that he will move to revamp the PRI at its convention in September, reshaping the party to his modernization movement.

PAKISTAN

The dismissal of Prime Minister Benazir Bhutto's 20-month-old democratic government on charges of corruption and incompetence has left Pakistan uneasy, despite President Ghulam Ishaq Khan's promise to hold elections on Oct. 24. Khan has declared a state of emergency and dissolved the national and four provincial assemblies. Now, interim Prime Minister Ghulam Mustafa Jatoi's rhetoric suggests that Pakistan may be in for ar other period of military leadership.

Pakistan's importance to the U. S has diminished with the end of the col war and the Soviet withdrawal fro Afghanistan, but U. S. interests ar more likely to be served by Bhutto' secularist Pakistan People's Party tha by a junta. Bhutto opposed nuclea proliferation and championed huma rights. But citing Bhutto's failure t confront aggression by India in Kash mir and civil strife at home, Jatoi ha been talking about what he calls "ac countability." That worries Pakistanis since the late General Zia ul-Haq ofte used that word before he turned hi 1977 coup into 11 years of army rule.

WHILE EVERYONE ELSE
IN GENERAL AVIATION WAS
CHANGING PAINT AND CARPETING,
WE CHANGED THE INDUSTRY.

WITH STARSHIP.
AN AIRPLANE SO ADVANCED THE COMPETITION MAY NEVER CATCH UP.

On June 11, 1989, aviation history was made. It was the culmination of 7 years of development and testing. It was the first delivery of Starship. Literally the most tested and certainly the most innovative airplane in general aviation.

In developing Starship, rather than satisfying ourselves with mere cosmetic changes, we chose a bolder path. One that used technology unavailable in any other business aircraft. Such as graphite composite construction so strong it has no fuselage or wing life limit like most other airplanes. Such as state-of-the-art avionics more advanced than *any* other in general aviation. Such as the unique wing configuration that simultaneously provides better stability and less drag.

The result is an airplane of such comfort and capability, it is certain to engender a whole new generation of imitators.

WHAT SETS IT APART IS THE WAY IT'S PUT TOGETHER.

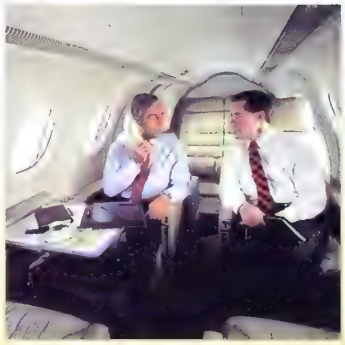
For Starship, our goal was simply to create the most advanced, durable, reliable, roomy and capable turboprop available to the business traveler. We're happy to report, that on all counts, we succeeded.

Of course, we know one day in the future our competitors may have airplanes like Starship. But rather than wait that long for a copy, why not avail yourself of the opportunity to own the original? For more information on Starship and Beechcraft's unique 2 year free maintenance program, or for a demonstration flight, call 1-800-835-7767 Ext. 561.

The simple formula for greater stability: two wings are better than one. The forward-wing design further aids performance by producing less drag and weight while providing incredible stability.

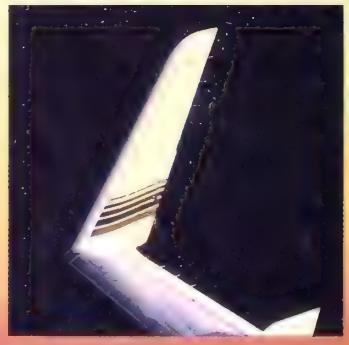
Avionics were designed by Collins specifically for Starship to give owners point-to-point navigation worldwide. They are the most advanced in general aviation and are fully equal to those of the most advanced airliner in the world, the Boeing 747-400.

The interior offers eight passengers a comfortable respite from the din of daily business with comfort levels closer to luxury cars than business airplanes.



The performance is riveting, in part because the composite constructior is rivet-less. This affords a surface as smooth as glass for efficient operation.

Tipsails are located at the end of each wing. These advancements in winglet technology increase the effective span of the wing and provide superb directional control.



Forward thinking put the engines in back. Powerful propfan engines are mounte rearward and push, rather than pull, the airplane. Th resulting performance lets Starship complete the typica business mission within minutes of the fastest jets while using one-third less fu

Beechcraft. Where new ideas take flight.

Beechcraft
A Raytheon Company

REGULATORS

A NEW CHIEF HAS OSHA GROWLING AGAIN

Gerard Scannell puts teeth into his safety-pays campaign

OSHA is back. The nit-picking bête noire of business during the Carter Administration went into hibernation in the Reagan era. With its budget slashed by 25%, the Occupational Safety & Health Administration's enforcement efforts were virtually nonexistent, and its rule proposals moved at a snail's pace.

Now, under Gerard F. Scannell, the agency is trying to strike a balance between regulatory zealousness and a hands-off approach. In a job that usually draws much sniping from business and organized labor, Scannell is earning high marks—and only a few snipes—from both sides. "OSHA has put health and safety issues back on the corporate radar screen," says Franklin J. Mirer, safety director of the United Auto Workers.

NEW TERRITORY. That's what Labor Secretary Elizabeth H. Dole had in mind when she appointed the 55-year-old Scannell assistant secretary for OSHA nearly a year ago. Since the beginning of Dole's tenure, the agency has released a backlog of rules on everything from trench-digging to chemicals-handling. OSHA also is moving into new regulatory territory (table). Noting that 36% of worker deaths occur on the road, Scannell, the former safety chief at Johnson & Johnson, has proposed new rules for people who drive on the job. He's also issuing guidelines this summer on ways to reduce ailments due to repetitive motions, which now account for half of workplace illnesses. And he's mulling a rule to ban workplace smoking.

In a show of force he hopes will deter others, Scannell has imposed substantial fines, including $7.3 million against USX Corp. for safety, health, and record-keeping violations. He favors legislation that would stiffen criminal penalties—to as much as 10 years in prison—for violations that lead to a worker's death. "It will show employers the seriousness with which we view exposing employees to physical harm," Scannell says.

When Scannell speaks, both labor and business listen. That's because of his remarkable record as safety chief at J&J, where he reduced the number of work days lost to injuries by 92% from 1979 to 1989. He did this, in part, by making managers accountable for their units' safety lapses. "Corporations just don't realize the cost of accidents," he says.

Scannell's gospel of the bottom-line benefits of job safety is an important part of OSHA's enforcement efforts. Even with a bigger budget, the agency can visit only 2% of the 6 million workplaces each year, so OSHA still has to rely heavily on voluntary compliance.

CLEAR DIRECTION. Scannell also is trying a new technique: requiring violators to institute companywide hazard-reduction plans even if only one plant is cited. For instance, on July 23, Ford Motor Co. agreed to set up programs in almost all of its plants to curb repetitive-motion hazards. In return, OSHA agreed to cut its original $1.9 million fine at a Pennsylvania plant to $1.2 million.

While organized labor and some safe-workplace groups like Scannell's enthusiasm, they want him to go further. Labor would prefer mandatory standards instead of voluntary guidelines for repetitive-motion problems, for example. Unions and safety groups also worry that OSHA is lax in monitoring its agreements with companies.

For their part, executives say they're glad to get guidance from the agency. "A number of companies have been waking up to the fact that they have responsibilities that they've ignored in the past," says Thomas F. Evans, Monsanto Co.'s safety director. Still, business worries about the big fines OSHA is imposing, especially for such things as repetitive-motion injuries that aren't covered by specific regulations. "It's unfair to impose enormous fines when industry has no guidance," says Donna J. Costlow, of the National Association of Manufacturers.

Scannell has no intention of backing down on his big-fine policy. Whacking a chief executive or two, he thinks, may persuade others to put safety high on their agendas. "If all CEOs talk about with the people who report to them is production and efficiency, then health and safety won't be considered important on the plant floor," he says. A CEO who ignores Scannell's message runs the risk of becoming OSHA's next target.

By Susan B. Garland in Washington

SCANNELL: "CORPORATIONS JUST DON'T REALIZE THE COST OF ACCIDENTS"

A TOUGHER OSHA

In the last 18 months, OSHA has:

- Proposed a standard requiring workers to wear seat belts if they drive as part of their jobs
- Prepared guidelines to prevent repetitive-motion disorders
- Proposed a rule to protect health care workers from exposure to infectious diseases such as hepatitis B and AIDS
- Levied large fines on companies for alleged violations of its rules

DATA BW

INVESTMENT BANKERS

TALK ABOUT HAVING A FULL PLATE

Jim Wolfensohn adds the Kennedy Center to his host of projects

In May, James D. Wolfensohn invited Carolyn Reynolds to dinner at the Four Seasons. After the two settled in at Wolfensohn's regular corner table, he got right to the point. The New York investment banker recently had been named chairman of the Kennedy Center in Washington, and he wanted Reynolds, director of programming at Arts & Entertainment Network, to consider working for him. She was taken by surprise. Recalls Reynolds: "I said, 'Well, I have to think about it. How long do I have?' And Jim said, with an absolutely straight face, 'Till dessert.' "

That's the thing about moving in Wolfensohn's orbit: There's no room for hesitation. Besides trying to reshape the Kennedy Center, he's the chairman of Carnegie Hall. He also sits on the boards of eight charitable and educational groups and is a director of CBS Inc. If that weren't enough, he also happens to run a busy and very profitable investment bank, James D. Wolfensohn Inc. In that role, he is adviser to chief executives of about two dozen blue-chip companies, including American Express, Du Pont, and Daimler Benz.

Wolfensohn's commitment to the arts stems from an intense personal interest in music. Conductor Daniel Barenboim and cellists Mstislav Rostropovich and Yo Yo Ma are his friends. An amateur cellist, he gave a recital at Carnegie Hall for his 50th birthday six years ago. Isaac Stern played violin. An inveterate world traveler, too, he has explored jungles in Venezuela and fished for salmon in Alaska. He represented Australia as a fencer in the 1956 Olympics. Says daughter Sara, a concert pianist: "Whatever he does, he manages to master."

BEST OF TEXAS. Mastering the Kennedy Center's problems will be quite a test. The center's six theaters have long offered a wide mix of programs, but it has never enjoyed the sort of world-class prestige of a Carnegie Hall. Wolfensohn says he feels strongly that making the center first-class would show the world that "the performing arts matter in the national capital," he says, "particularly at a time when the National Endowment for the Arts and a lot of other things are coming under attack."

His tenure began dramatically. Shortly after signing on, Wolfensohn pronounced the center financially bankrupt and criticized its programming for lacking focus. The remarks shook up staffers and led to a bitter resignation by Artistic Director Marta Istomin. Wolfensohn since has excised the word "bankruptcy" from his vocabulary. "I discovered that it's a very emotive word," he says. "What I say now is that the liabilities outweigh the assets by $15 million." The center can raise the $20 million it needs annually from private funding, he says. But he has asked Congress first to contribute $45 million to pay off the deficit and make much-needed repairs, including fixing a leaky roof. In the spring, he vowed to leave if his request was denied, though he now says he's unsure what would happen.

SEVENTH STAGE. Lawmakers won't vote on the issue until fall, but Wolfensohn hasn't let that slow his plans. He recently unveiled a major part of his agenda—theme-related festivals featuring the best in theater, music, and dance from around the world. The Texas Festival is already scheduled for 1991, the Festival of the Americas for 1992. He also has announced a plan for a so-called seventh stage—television—that would involve developing educational and entertainment programs for global broadcast. A&E's Reynolds signed on in June as director of TV and special projects.

Meanwhile, Wolfensohn is working double-time lobbying for the $45 million. He promised the center two days a week when he took the unpaid post, but lately he has devoted considerably more. He and his wife, Elaine, have even taken an apartment in Washington so they can spend time with influential people in the community. More than half a dozen bigwigs have given parties in their honor, including Washington Post Co. Chairman Katharine Graham.

Shuffling the demands of commerce and art is a huge strain, concedes Wolfensohn, who says he has cut sleeping to six hours nightly. But partner Glen Lewy says Wolfensohn remains in the thick of things at work. He is involved in three major transactions in progress. He packs in about 15 meetings with clients a week, Lewy says, flying to destinations around the country in a private jet, and not infrequently eating meals in three different cities in a day. "What Jim doesn't do, to be very honest," says Lewy, "is something called relaxing." One thing Wolfensohn doesn't have to worry about, though, is the work of his

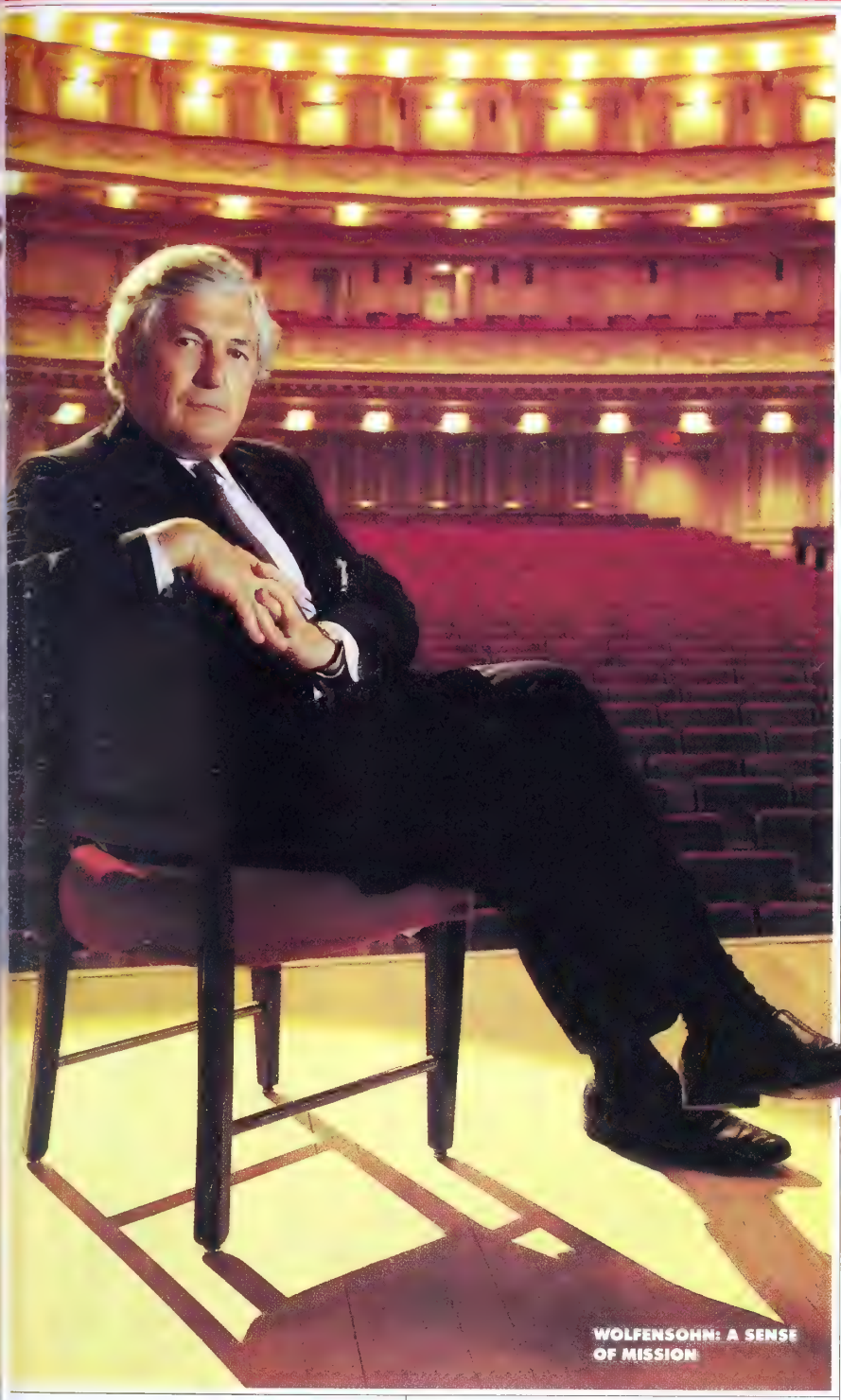
A BUSY 1990

New York investment bank James D. Wolfensohn Inc. has announced or completed 12 deals worth $7 billion this year. Some highlights:

Deal	Total value Millions of dollars
Holiday Inn hotels sold to Bass PLC. The remaining *Holiday Corp.* businesses spun off to shareholders	$2,260
International Lease Finance sold to American International Group (pending)	$1,300
American Express Trade Development Bank sold to Compagnie de Banque et D'Investments	$1,000
Fire-protection-equipment maker *Wormald International* sold to Tyco Laboratories	$650
Reliance Group Holdings' *General Casualty of Wisconsin* sold to Winterthur Swiss Insurance	$630
AmEx bought remaining interest in Shearson Lehman	$360
Cummins Engine sold 5.4% stake to Japan's Kubota	$50

Wolfensohn clients in italics

DATA COMPANY REPORTS



WOLFENSOHN: A SENSE OF MISSION

x partners, powerhouses in their own ght. They include former Federal Reerve Board Chairman Paul A. Volcker id Brian M. Powers, former managing rector of Far East trading company rdine Matheson Holdings Ltd.

Recently, a stream of top Soviet fi-nce officials and Czech President Vá-av Havel have dropped by the office. 'ou never quite know whom you'll run to," says Lewy. He still chuckles over e day Donald E. Petersen, then-chairman of Ford Motor Co., and Chrysler Chairman Lee A. Iacocca showed up in quick succession, one to see Volcker, the other, Wolfensohn. "Disaster" in the reception area was imminent, but quick action prevented the rivals from having to shake hands by 60 seconds, he says.

The firm specializes in "relationship" banking. That is, it aims to help clients shape long-term strategy, as opposed to simply doing deals. Unlike many of its competitors, it doesn't put money into clients' deals. "We think it's better to be independent and not have that equity interest," Wolfensohn says. The approach appears to work well in the less frantic deal environment of the 1990s. Since January, the firm has structured a dozen major transactions, worth $7.3 billion (table), and is having its most profitable year ever.

An American citizen since 1980, Wolfensohn grew up Down Under. His British emigré father was a business consultant. Wolfensohn attended the University of Sydney and received a law degree there in 1956. But then came an awakening. "An American lawyer I was dealing with discovered that I couldn't read a balance sheet," says Wolfensohn. "He told me—with some sense of anger—that I should go to Harvard business school. I was so embarrassed that I did."

PLAYING IN SYNC. On returning home from Harvard, he helped form Australia's first investment bank, Darling & Co. Six years later, he joined Schroders Ltd., a London investment bank, becoming CEO in 1975. By 1977, he was gone. Says Wolfensohn dryly: "I think there was a difference of opinion on who should be chairman." Next stop was Salomon Brothers Inc. in New York, where he became a partner. At the time, Salomon was well known for aggressive risk-taking, but it lacked the patrician flavor and polish needed to secure a reputation in the big leagues. Wolfensohn, hired to reorganize the corporate finance department, was brought in to change that. Says a former Salomon partner: "He had contacts with the intelligentsia and international elite that no one else had."

Wolfensohn's big coup at Salomon was the $1.5 billion Chrysler bailout, completed in 1980. He was Salomon's chief financial adviser to the auto maker, handling prolonged negotiations with 492 U. S. and overseas banks and insurers. It was brutal. After a minor operation, Wolfensohn worked so hard that he had to return to the hospital for a week for treatment of internal bleeding. He took his papers with him. In 1981, Wolfensohn left Salomon to create his own firm—a move described by other former partners as amicable.

Although he played piano as a child, it wasn't until his mid-40s that Wolfensohn took up the cello. Studying with friend Jacqueline DuPre, Wolfensohn began with J. S. Bach's very difficult G-major cello suite—a feat comparable in audacity to a college freshman setting out to do a leveraged buyout of RJR Nabisco. "Of course it posed a number of problems," he says, "since I didn't know which string made what noise." But he

GEORGETOWN
FIRE AND RESCUE

"THE MAYOR reckons I'm like A GLASS of warm MILK. I help all of GEORGETOWN get a good night's SLEEP."

LARRY ADKINS
Georgetown Fire Chief

UNTIL LAST YEAR, GEORGETOWN, Kentucky, relied mostly on volunteers to protect the town's 12,500 people.

Even though they're a dedicated bunch of guys, they were hard-pressed to keep up with the demands of a growing town. It's the kind of situation that could keep you up nights.

Then, last September, Georgetown hired itself a professionally trained fire chief.

Since his appointment, Larry Adkins has gone through the place like a tornado.

He hired 10 full-time firefighters, all of them highly qualified.Then he outfitted every team member, volunteers included, with state-of-the-art breathing apparatus, fire-resistant uniforms and equipment. And just to make sure the gear won't collect any dust, Larry insists on a minimum three hours training and drills. Every day.

Which explains why all hands are out of the firehouse and on the way to a fire within 60 seconds of the alarm sounding. (Larry had an idea to even improve on that, but he couldn't persuade the men to sleep fully dressed inside their trucks.)

We're happy to say the taxes Toyota pays the town helped make Larry's appointment possible.

Apart from the $1,000,000 or so the revenue will amount to this year, we employ some 3,200 people in our Georgetown plant, 95% of them Kentuckians.

We're pleased to be giving the town's economy such a boost.

But we're just as pleased to know that aside from 36 firefighters, everyone in Georgetown is sleeping sounder these days.

TOYOTA

INVESTING IN THE INDIVIDUAL

learned the piece, one bar at a time.

On his 50th birthday, Wolfensohn performed a Haydn trio and a work by Robert Schumann at Carnegie Hall. Afterward, all 600 guests dined in the hall, of which he has been chairman for 15 years. When the New York Philharmonic performed Mahler's Second Symphony in 1986 to celebrate Carnegie's $60 million face-lift, a project Wolfensohn cochaired with Primerica Corp. Chairman Sanford I. Weill, Conductor Zubin Mehta invited Wolfensohn to join the cello section. To assure that he played in sync with the other musicians, Wolfensohn hired his daughter's classmates from the Juilliard School to practice with him.

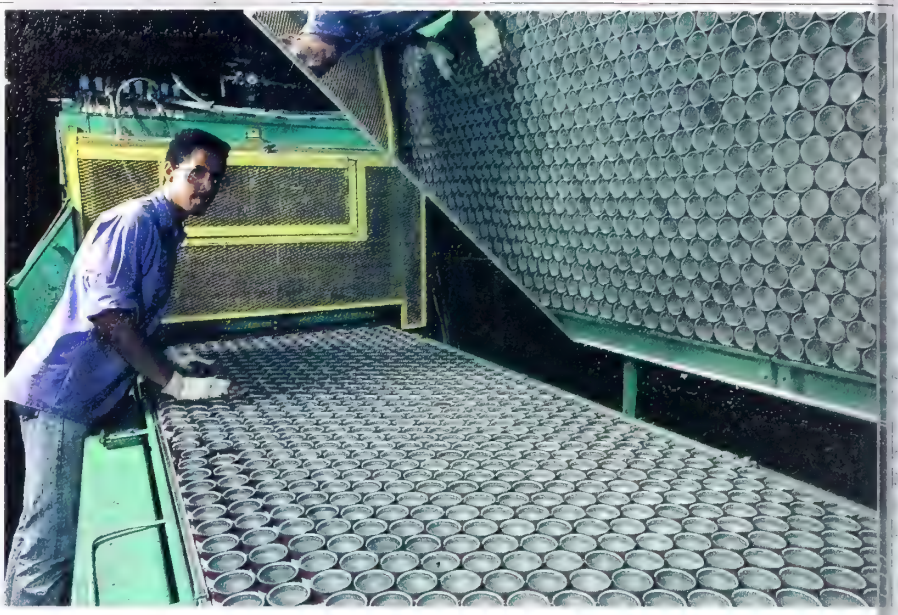
RUSSIAN LESSONS. Half the fun for Wolfensohn seems to come from the thrill of fresh challenges. One of his latest is golf, which follows a string of other pastimes, including watercolor painting, sailing, fishing, and tennis. He adores competition, friends say. Former Salomon colleague and tennis chum Richard Schmeelk laughs that when the two arrange doubles matches, "even when I sneak in a pro, he finds out and brings a better pro." Stephen Bollenbach, chief financial officer at Holiday Corp. spinoff Promus Cos., says that even trout fishing brings out Wolfensohn's love of a contest: "Jim is attentive to the number of fish caught and by whom."

Now, Wolfensohn would like to be a bigger competitor on the international front. Last year, his company formed a 50% joint venture with Japanese bank Fuji International. The firm has a handful of clients in Europe and is considering establishing a formal presence there. On Eastern Europe, Wolfensohn is cautious: "I just don't want to be the 93rd firm saying, 'There's a hot new ticket in Eastern Europe, and we're expert at doing it, and we'll introduce you to the president of some country.' "

Still, he and his partners are staying abreast. Volcker has traveled to Eastern Europe several times this year, and Wolfensohn is planning a trip for the fall. The firm also is helping several Soviets attend Harvard business school, after which it guides them to banking jobs in the U. S. so they can be better prepared to help their country when they return.

Back at the Kennedy Center, Wolfensohn has lined up management consultant Cannon Devane Associates to perform a complete evaluation for free, and says he'll announce a reorganization after it's done. Wolfensohn's wife has urged him to drop an activity or two, but to little avail. "I don't think I would keep doing this if I didn't feel passionately about it, because it's a big strain," he says of the Kennedy Center. "But I have a sense that I'm really on a mission that matters."

By Andrea Rothman in New York



THIRST AID: HEALTHY BEVERAGE SALES HAVE FINALLY ALLOWED CAN PRODUCERS TO HIKE PRICI

FROM GLASS JARS TO STAR WARS AND BACK AGAIN

As aerospace dollars shrink, Ball Corp. comes home to containers

If you know Ball Corp. at all, you probably remember it for the glass fruit jars used by generations of cooks to preserve summer's bounty for the dark depths of winter. But the company, based in Muncie, Ind., is much more than the mainstay of the jelly cupboard. Long a minor player in aerospace, it positioned itself as a high-tech defense contractor during the 1980s, building components for the Strategic Defense Initiative and Stealth bomber.

Now, with military budgets shrinking, the nation's No. 3 beverage-can maker is getting back to basics. On July 30, the 110-year-old company shelled out $1 billion for the European packaging operations of Continental Can Co. It paid another $65 million to buy back the 50% stake in the glass jar business it had sold in 1987. The acquisitions will nearly triple Ball's revenues in 1991, to $3.2 billion from $1.2 billion last year, and make it a major player in the fast-growing European can business. And Ball isn't done yet. Says Ball Chief Executive Officer Richard M. Ringoen: "We aim to become a global can company."

That hasn't always sounded like an inspiring goal to Ringoen. In the late 1980s, operating margins in commodity cans were squeezed by industrywic overcapacity and slumping demand. F profits, Ball looked to its defense ar space business—which makes every thing from life-support systems for th space shuttle to laser mirrors for SDI.

Pentagon spending cuts have take the steam out of many of those unit and Ball's can and packaging business- which accounted for 63% of sales befor the Continental acquisition—is revivin Industry consolidation and growing d mand for cans among soft-drink an beer producers have enabled the indu try to raise prices for the first time five years. As a result, Merrill Lynch Co. analyst Richard Palm figures Ball operating profits from packaging wi jump 85%, to $63 million in 1990, whi the company's other units will repo flat earnings.

Ball desperately needed a foreign a quisition to be a top-tier player in pac aging. European can consumption growing 20% annually, double the U. rate, as soft-drink producers Coca-Co Co. and PepsiCo Inc. expand volum there. That has sparked a wave of indu try consolidation, including the purchas of Triangle Industries Inc., parent American National Can Co., by France

echiney. Although Coke and Pepsi are ready major U. S. customers of Ball, ıe company had no capacity to tap the rowing European market. If Ball ıdn't bought Continental, says industry ıalyst Timothy P. Burns of Prescott, all & Turben Inc., it would have risked sing business to suppliers such as Pe- iney that can negotiate worldwide ntracts.

ɔOD PROPERTIES. Ball's belated entry to Europe was costly. Continental, the st major independent canmaker in the gion, sold at a premium—a hefty 65¢ r every dollar of sales. Rival Crown ırk and Seal Co., by contrast, paid just ¢ for every dollar of sales when it ught Continental's domestic opera- ıns in early July. "Seems like they paid lot of money," says Crown Senior ce-President Henry E. Butwel. Says ngoen: "We made a good deal." Ball's ɔck rose a point, to 33¾, on the news. Ball certainly gets some good proper- s. Continental invested over $400 mil- n since 1987 to build three plants in ırope, and it counts Coke and Pepsi ıong its customers. In 1989, the Euro- an unit claimed a 31% share of Eu- ɔe's food- and beverage-can market d posted operating income of $104 mil- n on revenues of $1.4 billion. After ling its larger packaging units, Conti- ntal, which went private in a 1984 yout, will be left with a clutch of ıaller packaging ventures.

More international moves could be on ; horizon for Ball. Over the last three ars, it has formed joint ventures in ia and Canada. Last year, Ball began ɔorting cans to Japan, where Ringoen ;s the company may build a plant. In 39, only 1% of Ball's sales came from erseas. By 1991, that ɔportion will jump to %.

All isn't quiet on the me front, either. ll, with a 12% share the U. S. bever- e-can market, is a tant third to ANC d Crown Cork and al, which together ıtrol over 50% of : market. Crown's twel says Crown d ANC could use eir economies of le to underprice ll. Ringoen admits t he would like to ɔand in the U. S., : says that will ;e to wait until : company pays vn the $625 mil- ı debt incurred to ; Continental.

The new push into containers demonstrates that the 64-year-old Ringoen is one leopard willing to change his spots. He's an electrical engineer who helped develop the Titan intercontinental ballistic missile when he worked at Martin Marietta Corp. during the 1960s. His PhD thesis was about the surface material of the moon. He joined Ball's aerospace division in 1970 and became chief executive in 1981. Ringoen managed to build aerospace sales to $274 million last year, from $189 million in 1985.

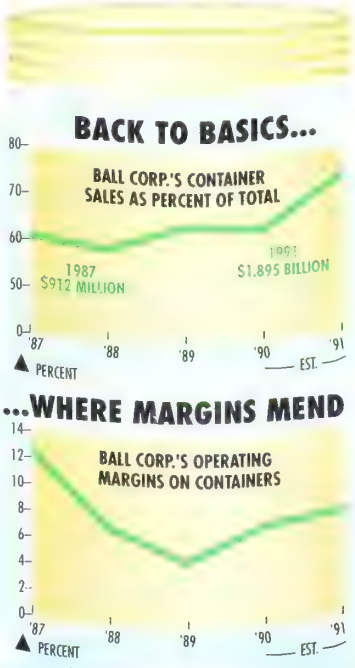
Ball is fitting airliners with antennas that will allow passengers to use phones halfway across the Pacific

Two years ago, the company said that by the end of the 1990s, its aerospace business would grow 80%, to $1 billion, on defense contracts and sales to NASA. Now, says Donovan B. Hicks, Ball's group vice-president of aerospace systems, "we're just trying to hold the line." Last year, overruns on a fixed-price defense contract sliced $10 million from Ball's net income, contributing to a 29% drop in earnings, to $35.8 million.

UNTAPPED MARKETS. Ringoen hopes to keep the aerospace group growing modestly by avoiding fixed-price defense contracts. The company is trying to expand its commercial and NASA work, with some success. Last year, Ball won NASA satellite-equipment contracts worth $146 million. And it is fitting Japan Air Lines Co. jets with new antennas that will allow passengers to use phones for the first time while halfway across the Pacific Ocean.

Ringoen's enthusiasm these days, though, is reserved for the prosaic can and jar. He sees vast markets in Eastern Europe and the Soviet Union, where aluminum cans are still a novelty. "We can hardly contain ourselves about the container market over there," he says. Satellites and antennnas may be closer to Ringoen's heart, but Ball's humble first love looks like the lasting one.

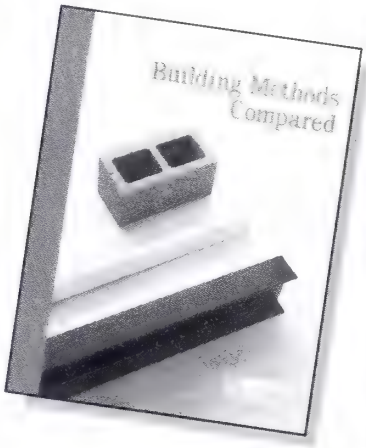
By Kevin Kelly in Chicago



DATA: COMPANY REPORTS, MERRILL LYNCH & CO.

Are you planning to build?

If you have made the decision to expand, establish or relocate your business, you know there are thousands of details to consider. VP Buildings can help. We'll send you the planning guide, "Building Methods Compared," including a special planning worksheet, and it's all free. Call or write for yours today! **1-800-238-3246.**



VARCO-PRUDEN BUILDINGS
AMCA INTERNATIONAL
Built On Superior Service

FREE! "Building Methods Compared" including the planning worksheet

Mail to: Varco-Pruden Response Center
P. O. Box 3900
Peoria, IL 61614

COMPANY: _____

YOUR NAME _____

TITLE _____

ADDRESS _____

CITY: _____

STATE _____ ZIP. _____

PHONE: (_____) _____

(2) **96WB**

RESTRUCTURINGS

MORE COMPLICATIONS AT CHARTER MEDICAL

Mental-health care cuts are squeezing its expansion plans

CHAIRMAN FICKLING: "PEOPLE SEEM TO HAVE FORGOTTEN WE'RE A GROWTH LBO"

William A. Fickling's timing was a little bit off. First, the founding chairman of Charter Medical Corp. teamed up with Drexel Burnham Lambert Inc. to take the psychiatric-hospital chain private in September, 1988. The $1.5 billion buyout used almost all borrowed funds. Then, he piled on $100 million in extra debt to continue an expansion drive. But Fickling's moves came just as companies slammed the brakes on their spending for employee mental-health care, the source of 70% of Charter's revenues.

Now, Fickling is feeling the pinch. Cash flow problems have forced him to scale back growth plans at Charter, based in Macon, Ga. The company will have a total of 103 hospitals by yearend, but the 1990 building plan has been slashed from $200 million to $140 million. Fickling has shelved projects, ordered layoffs, and closed some clinics. At the same time, he's facing bondholder lawsuits and regulatory scrutiny.

It wasn't supposed to happen that way. Fickling, 58, planned to use strong earnings from the psychiatric hospitals to pay down the buyout debt quickly. In the first year after the LBO, Charter had operating income of $282 million on revenues of $1.5 billion—more than enough to cover debt service of $227 million. But by the second quarter of this fiscal year, cash flow slipped to $52.9 million, from $78.4 million a year earlier. And a special charge to cover accounting irregularities helped push operating income to only $6.8 million. In March, Charter admitted that employees had overstated revenues. Even after the cutbacks, analysts expect Charter to report weak third-quarter results on Aug. 14.

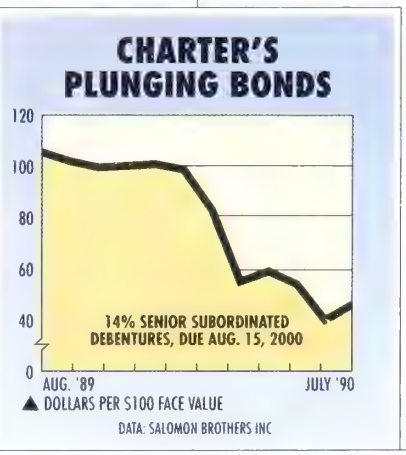
SHORT STAYS. Blame the rapid changes roiling the $5.3 billion private mental-health care industry. A survey by benefit consultants A. Foster Higgins & Co. found mental-health and substance-abuse treatment costs surged 47% in 1989 for large companies, compared with a 20% rise in overall health care costs. To clamp down, insurers and employers such as AT&T Co. and IBM Corp. are hiring firms that monitor their health care costs.

The upshot of this is shorter stays in Charter's hospitals. Many insurers will now pay for a maximum of 21 days of hospitalization, down from 28 to 30 days two years ago. While Charter's admissions rose 20% in the second fiscal quarter, the total number of days patients spent in hospitals rose only 8%. Since a psychiatric hospital incurs much of its costs in the early part of a patient's stay, expenses in Charter's psychiatric division rose far faster than revenues.

To combat the cash crunch, Fickling could unload some or all of the company's 13 general hospitals, and Charter is planning a $45 million sale-leaseback of several psychiatric hospitals. But some analysts are betting that Charter will eventually have to offer equity to bondholders in return for reduction in total debt. If that happens, Fickling and his family would be hit hard. They received $112 million for Charter stock they sold to an employee stock ownership plan but still control 19% of the equity.

SLIPPING BONDS. Fickling, who got his start in his father's real estate firm and founded Charter 21 years ago, hopes to convince companies that cutting hospital stays is a false economy, since many employees will return to work with unsolved problems. The result: absenteeism, reduced productivity, injuries, and property damage. "It's not about how many dollars are spent staying in the hospital," he says. "It's about whether or not the patient gets well."

While Fickling is struggling to get that message out, Charter is facing problems with regulators. The Health and Human Services Dept. is delving into company records for possible medicare fraud after the company's admission that it had overcharged medicare by about $900,000. The U. S. Labor Dept. is also looking into the company's ESOP, which holds 81% of Charter's equity—a review Charter says is routine. In addition, at least three bondholders recently sued Charter for alleged misrepresentation of its financial condition. The company denies the charges. Holders of the largest issue have already seen the bonds lose more than half their value (chart).



What with all Charter's woes, says Fickling, "people seem to have forgotten we're a growth LBO." Count Charter's bondholders among the understandably forgetful.

By Stephanie Anderson Forest in Macon, Ga.

Europe's No. 1

insures

your risk.

Allianz worldwide

Argentina
Australia
Austria
Belgium
Bermuda
Brazil
Canada
Chile
Denmark
Egypt
France
Germany
Great Britain
Greece
Hong Kong
Hungary
Indonesia
Ireland
Italy
Japan
Liechtenstein
Mexico
Netherlands
New Zealand
Norway
Peru
Portugal
Saudi Arabia
Singapore
South Africa
Spain
Sweden
Switzerland
Tunisia
Turkey
Arab Emirates
USA
Venezuela
Yugoslavia

Being at home where you are.

Familiarity with regional situations is the precondition for offering the right insurance cover for every risk. Allianz is at home in 39 countries all over the world. For 100 years comprehensive technical and financial resources have made Allianz a proven partner for business.

Chance has played no role in making us the leader in the demanding European market. Nowadays, Allianz insures major industrial and technical projects all over the world.

Allianz

EUROPE'S LEADING INSURANCE COMPANY

FASHION

HOW DU PONT KEEPS 'EM COMING BACK FOR MORE

Its original spandex patent is long gone. So why the loyalty to Lycra?

Marketing pros will tell you that a successful product typically enjoys an initial spurt of rapid growth, then hits a plateau as it matures. But chemical giant Du Pont Co. has an aging product that this year is acting like a hot new launch—Lycra, the super-stretching polymer invented in its labs in 1959.

Thirty-one years after Lycra's humble start as an ingredient for girdles, demand is exploding so fast that Du Pont has to allocate sales of the fiber, whose generic name is spandex. Analyst Paul Christopherson of Bear, Stearns & Co. estimates that Du Pont's operating profit from Lycra will surge to a record $210 million this year on projected sales of $840 million (chart). Lycra's estimated share of the worldwide spandex market: a hefty two-thirds, even though Du Pont's original patent expired years ago. And Lycra is flourishing at a time when other synthetics are losing ground to natural fibers.

Behind this wild success is shrewd marketing by Du Pont as well as the fashion world's increasing fascination with the product. Lycra's use has expanded steadily, from bathing suits in the '70s to bicyclists' pants and aerobic outfits in the '80s. Then, about three years ago, Du Pont had a great stroke of luck: Teenagers turned to nylon-Lycra bike shorts and exercise wear for their everyday fashion wardrobes. Avant-garde designers such as France's Jean-Paul Gaultier picked up on the trend, using Lycra in new, body-hugging designs.

Now, this distinctly unnatural fiber has entered the fashion mainstream. Mass-market stores such as K mart stock cotton-Lycra leggings for everyday use. In their fall collections, high-fashion designers such as Donna Karan and Norma Kamali have added Lycra to cashmere, velour, and velvet outfits costing upwards of $500. And upscale apparel maker Marsha Drogin of Tapemeasure has been scoring big this year with a one-piece cotton-Lycra unitard. Tapemeasure's cotton-Lycra dresses, pants, and shirts will generate a projected $45 million in sales for 1990 at stores such as Bloomingdale's and Macy's. "[Lycra] is the modern foundation of the '90s," says Karan, playing off Lycra's original use.

DROGIN AND SON: PROJECTING $45 MILLION IN SALES FOR A LYCRA-IN-EVERYTHING LINE

Designers such as Karan and Drogin love the way a garment that's only 5% Lycra can retain its shape and resist wrinkles. Du Pont's big marketing success has been in developing new versions of Lycra that expand the market for this versatile fiber. The first Lycra was too bulky for lightweight items such as panty hose and dresses. But Du Pont scientists, consulting with textile manufacturers, have since come up with finer—and pricier—versions that can be knitted or woven into delicate fabrics.

Du Pont's innovations, as well as the technical difficulty of making the stuff, have helped make Lycra synonymous with spandex. The only other major players in the U. S. market are Globe Manufacturing Co. in Fall River, Mass., and Germany's Bayer, which has 25% of the European market. Bayer has only a small presence here, but it is expanding capacity in Europe.

Analysts think Lycra can easily handle this competition. But Du Pont wants to keep up the momentum. The company sees a huge market that remains untapped: Despite its popularity, Lycra is now added to only about 1% of all outerwear. So Du Pont is investing $500 million over the next three years to build and expand Lycra plants worldwide.

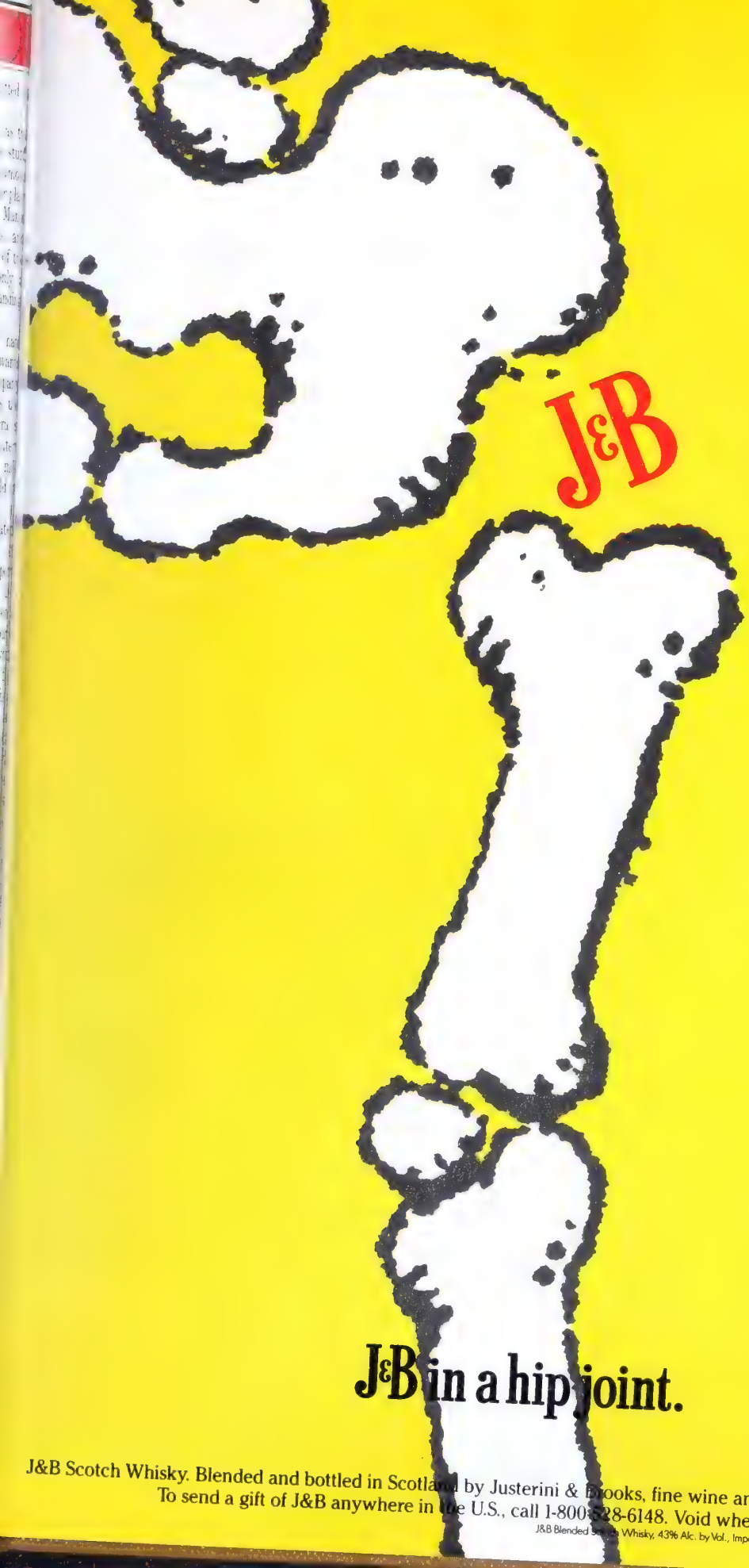
Meanwhile, Du Pont's sophisticated sales force combs the showrooms of New York's garment district for opportunities to sell Lycra. Paul Gillease, director of Du Pont's textile division, drops in at studios to encourage younger designers who are interested in using the fiber. In the past nine months Du Pont helped underwrite a gala at Bloomingdale's to publicize Lycra designs and ran a seminar in New York's chic Soho district to discuss fashion's future and Lycra's role in it.

TEAM TAG. These efforts have created staunch Du Pont loyalists in the rag trade. "I wouldn't buy any spandex that wasn't from Du Pont," says Mona Friedman, vice president of Body Action Design, a New York-based maker of cotton-Lycra and nylon-Lycra sportswear.

Du Pont wants consumer loyalty, too. It has teamed up with Cotton Inc., the industry trade group, to develop a "made with cotton and Lycra" logo for clothes hangtags. And a new ad campaign highlights the nylon-Lycra apparel that Greg LeMond wore in his Tour de France victory. Du Pont is also helping retailers promote "Intimates with Lycra" lingerie.

These strategies seem to be paying off. Half the consumers in a recent Du Pont study said they would pay 20% more for a wool-Lycra skirt than for an all-wool version. Steve McCracken, managing director for Lycra in Europe, calls his product the "cashmere of man-made fibers." Maybe so. For Du Pont, it's Lycra's profits that are luxurious.

By Monica Roman in New York



J&B in a hip joint.

J&B Scotch Whisky. Blended and bottled in Scotland by Justerini & Brooks, fine wine and spirit merchants since 1749.
To send a gift of J&B anywhere in the U.S., call 1-800-328-6148. Void where prohibited.
J&B Blended Scotch Whisky, 43% Alc. by Vol., Imported by The Paddington Corporation, Ft. Lee, NJ © 1990.

CROCODILES VS. CONDOS: CAN WE PROTECT OUR NATIONAL PARKS?

The Park Service is seeking the clout to restrict nearby private development

As soon as the sun rises over the vast saw-grass marshes of the Everglades, biologist Sonny Bass takes off in a single-engine plane in search of the Florida panther. Although he flies low, Bass rarely sees one of the five panthers still living in Everglades National Park. Instead, he circles until he picks up the radio signals emitted by collars the animals wear. The National Park Service hopes this tracking will help it learn enough about the great cat's habits to save it from extinction. "They are tough, adaptable creatures—as long as their habitat is maintained," says Bass.

But they may not be tough enough to compete with condos. Already, the park's animal life has been devastated by the diversion of water to South Florida's 4.5 million residents and by pollution from sugarcane fields and other farms. The population of wading birds has plunged 90% since the 1930s, the American crocodile is on the endangered species list, and there may be only 30 panthers left in all of Florida. "This is a critical time," warns Michael Soukup, director of the park's research center.

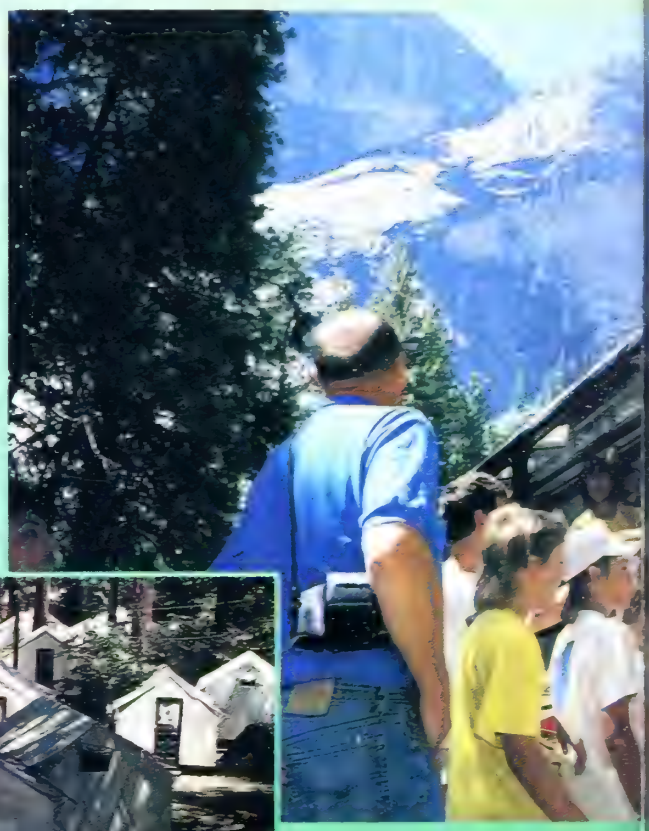
FUNDING CUTS. The Everglades is undeniably the most endangered of America's 50 national parks. But nearly all the major parks outside Alaska are threatened, mainly by development outside their borders. These dangers intensified during the '80s, as development increased while funding of programs such as parkland acquisition was cut. "The parks are facing the greatest period of uncertainty in their history," says Paul C. Pritchard, president of the National Parks & Conservation Assn. (NPCA).

Efforts to help are under way. The National Park Service and a loose coalition of environmentalists are pushing hard for more aggressive—and sometimes politically controversial—park protection measures. In a landmark experiment at Yellowstone National Park, the Park Service and the U.S. Forest Service—rival agencies that have sharply different mandates—are hammering out a way to co-manage the Greater Yellowstone ecosystem, an area five times as large as the park itself (page 72). Congress recently approved the addition of 107,000 acres to the Everglades to buffer its eastern boundary from development. And at the Grand Canyon, the Environmental Protection Agency is proposing that the nearby coal-fired Navajo Generating Station—which provides electricity to Los Angeles and Phoenix—install scrubbers to cut haze over America's most famous vista.

It will take many more such measures to safeguard the parks from other threats—including logging, oil and gas drilling, mining, commercial and residential development, and air and water pollution—even as the Park Service struggles to cope with a crush of visitors. At Yosemite National Park, the roads are clogged with traffic, and Yosemite Valley has been heavily developed with stores, hotels, and maintenance facilities.

Park Service Director James M. E denour, who took office last year, sa he was shocked that many of the park facilities are downright shabby. H boss, Interior Secretary Manuel Luja adds that contracts with the concessio aires, who provide services such as h tels and restaurants, are inadequat Some concessionaires pay a tiny fra tion—less than 1%—of their revenues fees. In July, Lujan announced that t fees would go up in future contracts.

Charges that overcommercializati and heavy tourist traffic are destroyi the parks may have been a bit ov blown: Even in Yosemite, more than 90 of the land is protected wilderness. Tou ist facilities take up less than 1% of Y lowstone. And at almost every par anyone who hikes more than a mile o the road will be all but alone.



YOSEMITE: SOME CONCESSIONAIRES PAID LESS THAN 1% OF LAST YEAR'S REVENUES TO THE PARK. GRAND CANYON (FAR RIGHT): A VIEW OF THE SMOG

But what happens beyond the parks' ıtes—in their larger ecosystems—can ıve a devastating impact, and that is e greater danger. The water that nourıes the Everglades flows in from more an 150 miles to the north. "These are mplex ecosystems, and there has not en enough work done to understand em," says Everglades superintendent ›bert Chandler. Worse, the land is rved into fiefdoms. More than 15 local, ıte, and federal agencies manage a unk of the Everglades ecosystem.

To deal with these problems, park ampions favor comprehensive action ›m Washington. They want the Park rvice budget, now $1.1 billion, in-ased to manage the parks' natural sources more effectively. They also nt more authority for park officials to pose development, and they back ›use Clean Air Act provisions that uld impose tougher standards to pro-t air quality around national parks.

Most of these proposals face an uphill ht. It's true that the Bush Adminis-tion has been more sympathetic than Reagan White House, and environ-ntalists are openly relieved. "It's like ›reath of fresh air," says Steven C. ıitney, director of the Wilderness Soci-'s national parks program. The Ad-ıistration plans to spend $1 billion to grade the parks' infrastructure over coming decade. On Aug. 8, Ridenour veiled a $40 million project at Yosemite to move support buildings out of the overcrowded valley. But with the federal deficit soaring, the Bush team also wants to take away—by cutting the Park Service budget by 5% next year.

The parks also have uneven support in Congress. Representative Bruce F. Vento (D-Minn.), chairman of the national parks subcommittee, steered a bill through the House last year giving the Park Service more independence from the Interior Dept., which critics say tends to favor development of public lands. But the bill has stalled in the Senate. And some Western senators—including Utah's Jake Garn and Wyoming's Alan K. Simpson—oppose the House Clean Air provisions, because of concern that they would hurt Western power plants.

'RIVER OF GRASS.' As a result, pro-park efforts are likely to proceed in halting steps. Ever since the Park Service was created by Congress in 1916, its primary mission has been to preserve the parks "unimpaired for future generations." That was much easier when civilization was far removed. Today, it is never far away—not even at Glacier or Yellowstone. "We have to look for new ways" to protect the parks, says Glacier superintendent Gil Lusk. "We can't do it by putting up a chain-link fence. If this area is developed up to the park boundaries, we won't have Glacier National Park: We'll have Glacier National Zoo."

The greatest danger is at parks close to urban areas. Survival of the Everglades hinges on providing enough clean water to the "river of grass." By adding 107,000 acres to the park's eastern border, officials will be able to remove flood-control mechanisms that block water from flowing through the Shark River Slough, which feeds the Everglades. And the South Florida Water Management District, which pumps water to the park through some 400,000 acres of sugarcane land, is being sued by the Miami U. S. Attorney's office for contributing to water pollution in the Everglades. Such efforts are complicated, however, by rapid population growth in South Florida, and the resulting increase in water demand. "There won't be enough water in the future," says University of Miami biologist Ronald Hofstetter.

Air pollution is another big problem. Under federal clean air laws, many parks are supposed to be Class 1 airsheds with pristine air. But in Tennessee's Great Smoky Mountains, smog cuts the visibility on bad days to about 10 miles, from the 40 to 50 miles that once was standard. At the Grand Canyon, smog "makes it impossible to see the full length of the canyon 100 days a year," says Chris Shaver, a Park Service air-quality specialist.

The Park Service spearheaded a study of the Grand Canyon's haze that found the nearby 2,250-megawatt Navajo Gen-

THE NATIONAL PARKS UNDER SIEGE

To protect the nation's crown jewels, federal officials and environmentalists want tough new measures that will attack such problems as these:

AIR POLLUTION The House version of the revised Clean Air Act would mandate stiffer air-quality standards in national parks

DEVELOPMENT The Bush Administration has earmarked $80 million for parkland acquisition next year, and Congress has voted to expand Florida's Everglades National Park by 107,000 acres

The USDA's Forest Service and the Interior Dept.'s National Park Service are trying to co-manage the Yellowstone area to protect resources

MAINTENANCE The Bush Administration has a 10-year, $1 billion parks improvement program, but also wants a 5% cut in the 1991 Park Service budget

CONCESSIONS Interior Dept. has announced higher fees for concessionaires

OVERCROWDING National Park Service Director James M. Ridenour is considering a reservations system for the most crowded parks

DATA: BW

erating Station, owned by the U. S. Bureau of Reclamation and five utilities, accounts for up to 70% of the smog on the worst winter days. The EPA wants the utility to install scrubbers to cut sulfur dioxide emissions by 90%. The utility says the study was flawed and that the scrubbers' cost—up to $1.5 billion—would far exceed any benefit. Even if scrubbers are installed, the canyon will still be shrouded by pollution blown in from Los Angeles in the summer.

Environmentalists believe far more sweeping action is needed nationally. They want to expand the parks to include some 2 million acres of private land within their boundaries, plus environmentally sensitive lands just outside. The Bush Administration has earmarked $80 million for parkland acquisition next year. But acquiring just the 2 million acres could cost more than $2 billion. And the NPCA says more than 200 of the Park Service's 355 parks, seashores, and other units also need expansion—at a far greater expense.

Of course, it will never be possible to expand parks enough to insulate them entirely from outside threats. That's why many environmentalists favor legislation that would give the Park Service far more authority to oppose development on nearby land. Currently its powers stop at the park gates.

For now, this proposal is going n where in Washington. That doesn mean the parks are doomed. Public su port has never been stronger, and a cent Roper poll ranked the Park Serv the most popular federal agency. All th suggests that the effort to preserve t parks could grow stronger, especially public concern mounts over the enviro ment. "If there is anyplace in the cou try that we should be doing our be environmentally," says Ridenour, "it in the national parks."

By William C. Symonds in Denv with Vicky Cahan in Washington, Anton N. Fins in Miami, and Elaine Chow Yosemite

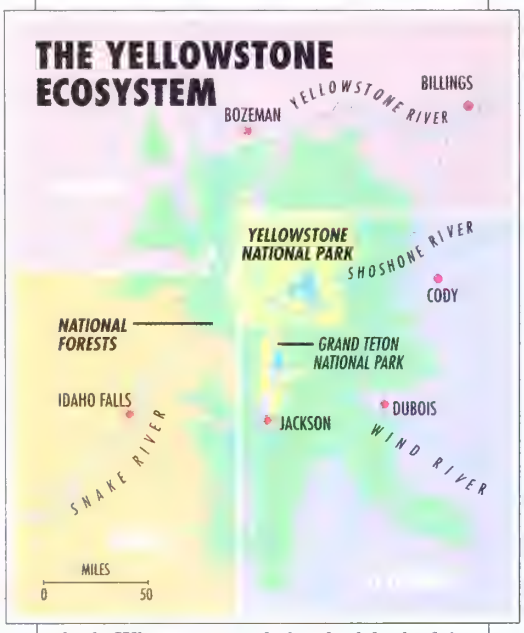
PRESERVING YELLOWSTONE'S 'DELICATE PLUMBING'

On a summer evening recently in Yellowstone National Park, traffic slowed on the road near Mammoth Hot Springs. As several dozen elk worked their way up a hillside, pausing often to graze, a small group of tourists stood nearby, transfixed.

Yellowstone is still one of the world's best places for such sights. The fires of 1988 opened up many new vistas, so the wildlife viewing is better than ever. And with more than 200 geysers and 10,000 boiling springs and hot pots, the park has the planet's best collection of geothermal features.

ELK AND BISON. But this enchanted spot is troubled. Yellowstone is the biggest park in the lower 48 states, with 2.2 million acres. But it is just part of a much larger, 12 to 14 million-acre ecosystem. Its elk and bison herds wander outside the park, and Yellowstone contains only 40% of the habitat used by its grizzlies. Most of the ecosystem is run by the U. S. Forest Service, which allows extensive logging. Now, hard-rock mining is burgeoning in forests just above the park, which contain North America's largest known reserves of palladium and platinum, plus gold. There's also oil and gas exploration. "The park's boundary line bears no relationship to the ecological realities," says Ed Lewis, head of the Greater Yellowstone Coalition, a public interest group.

The dangers of private development have been made clear by the Church Universal and Triumphant, a New Age group building its headquarters near the park. About 1 million acres of the ecosystem is private land, but much of it is vital to park wildlife—none more so than the church's 30,000-acre ranch, mostly purchased from the late Malcolm Forbes in 1981. Several thousand followers of church leader Elizabeth Clare Prophet—known as "Guru Ma"—have moved to the area. The church wants to tap a geothermal well, and with Prophet predicting nuclear war, members started building a bomb shelter and buried 600,000 gallons of fuel. When some of the fuel leaked in April, Montana sued to halt the work.



Environmentalists worry that no one has been considering the total impact of all this development, which is monitored piecemeal by four federal agencies, three states, and many private landowners. The policies often conflict: When bison wander into Montana, they can be shot, because of fear they will spread infectious disease to cattle. The park's chief scientist, John Varley says he is guardedly optimistic now "but not at all optimistic for the lon term." One worry: that oil and ga drilling could disrupt the geotherma features. "This plumbing system i very delicate," he says.

Such concerns have sparked an am bitious effort to plan Yellowstone's fu ture. The Greater Yellowstone Coord nating Committee, a group of Par Service and Forest Service officials last month issued a preliminary "v sion" of the area's future, includin proposed restrictions on develop ment. The blueprint doesn't directl affect private landholders, and th Forest Service will retain final au thority over its lands.

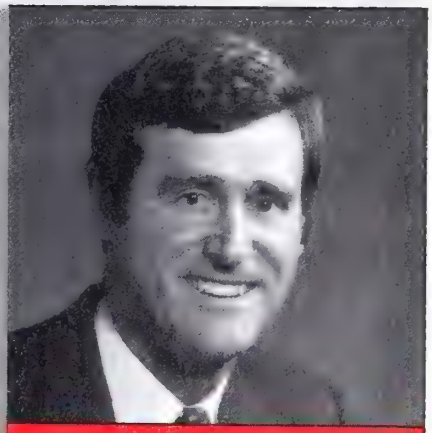
'BETTER JOB.' Still, more consulta tion with park officials will "mea we'll do a far better job of lookin at the cumulative effects of develop ment," says Gary Cargill, wh heads the Forest Service's Rock Mountain Region. And the grou warns that those hoping for a "bus ness-as-usual approach will be dis appointed."

The plan calls for prohibiting o and gas development unless there' evidence it won't harm geotherma systems. It also urges limits o building new logging roads. Th overall aim: preserving a "landscap where natural processes are operatin with little or no hindrance on a gran scale." In short, it's the most ambitiou effort to preserve a large ecosystem But that's only fitting. Yellowstone' inception marked the birth of the na tional park idea in 1872. Now, it ma become a laboratory for saving natura areas in a more complicated age.

By William C. Symonds in Yellowston

ONE LEADER SALUTES ANOTHER

For the past fourteen years, Business Week has recognized outstanding leadership in the truck industry by conferring the Truck Dealer of the Year Award. We do this in association with the American Truck Dealers. This year we are honoring M. John Hopkins IV, a Freightliner, WHITEGMC, GMC, and Mercedes-Benz dealer in Highland, Illinois.



Mr. M. John Hopkins IV

1990 TRUCK DEALER OF THE YEAR

Mr. Hopkins was selected by a panel of judges from the Columbia University Graduate School of Business in recognition of his leadership in the industry and his exemplary community service record. Business Week proudly salutes Mr. M. John Hopkins IV, the 1990 Business Week/ATD Truck Dealer of the Year.

BusinessWeek

GETTING OUT OF SADDAM'S WAY

Natural-gas and precious-metals stocks may offer investors the most hope

As armies roar across the sands of the Middle East, raising havoc in the financial markets, small investors remain paradoxically calm. Be it wisdom or paralysis, the public has sat on its hands even as the Dow Jones industrial average threatened to fall beneath 2700. "People aren't bewildered or perplexed," as they were during the 1987 crash, says Michael J. Hines, vice-president for marketing at the Fidelity Fund Inc. mutual fund group in Boston. "There were none of the 'get-me-out-of-the-market-now' kind of panic phone calls that we got in 1987."

Standing pat is easy—but it may not be the smartest course of action, even if the crisis in Kuwait evaporates as quickly as it arose. Oil prices are likely to remain above $20 a barrel for a long time, putting sustained pressure on bonds and other investments sensitive to interest rates, be they obscure regional banks or multibillion-dollar fixed-income mutual funds. And so long as the crisis in the Arabian peninsula continues, the stock market will remain prone to blood-chilling declines, such as the 105-point plunge in the first hour of trading on Aug. 6 (page 33).

GOLD AND NATURAL GAS. To ride out the storm, investors would do well to take a close—and cautious—look at energy stocks, notably natural-gas companies, and even at that long-bedraggled refuge in times of crisis, gold. To be sure, energy and precious-metals investments have had quite a rally, with diversified oil companies such as Texaco and Atlantic Richfield gaining 10% in the space of one week. But it's far too early to conclude that the energy stocks, or the broad range of precious-metals investments, have peaked. "I have found that the biggest mistake you can make is to underestimate a trend that is just starting to form and will go a long way," says Suresh L. Bhirud, chairman of the stock-selection committee at Oppenheimer & Co.

Natural-gas companies should benefit handsomely from continued upward pressure on oil prices. So far this year, the stocks of pipeline companies have suffered—falling 10% vs. a 12% gain by the major oil companies and a 27% spike enjoyed by the oil-field service companies. Natural-gas prices have been weak, lingering at a price 14% below year-ago levels because of excess supply and unusually warm weather during January and February. As a result, natural-gas stocks were in the doldrums until Saddam Hussein marched into Kuwait.

Although some gas stocks have a vanced modestly, such companies ha received nowhere near the attention th has boosted oil stocks. With crude pric on the rise, natural-gas companies are a position to expand their clientele heavy industry—notably utilities. Colu bia Gas System Inc., for example, is e panding its supply network throughc the Ohio River Valley and the Mide Atlantic states—and could see its pri

w about $47 a share, rise to as much $57 by next January, notes John Ol-n, who tracks natural-gas stocks for st Boston. Among the other gas-pipe-e companies that hold promise, in his w, are the Illinois-based NICOR, with fourth-largest gas-distribution net-rk in the U. S.; Oklahoma's ONEOK; d Seagull Energy, based in Houston d with operations in Alaska and the lf of Mexico.

Oil stocks are trickier, because of ir recent runup. Many investors—ging from small fry to U. S. Steel—ght into oil companies in the early 0s, hoping that oil prices as high as a barrel would be sustained. They e sorely disappointed. Some invest-t pros are reluctant to buy oil stocks r their recent runup, on the theory all possible geopolitical trauma—in-ing an outbreak of renewed hostil-—is already reflected in the share e. "I think it's too late," asserts Mi-l Sherman, chief investment strate-at Shearson Lehman Brothers Inc. deed, even analysts who favor oil stocks are advising caution. "It's dangerous to go in willy-nilly buying oil stocks. You need to be careful, since anything could happen," notes Frederick P. Leuffer, who tracks oil stocks for C. J. Lawrence, Morgan Grenfell Inc. But the downside, in his view, is limited. "Yes, oil could go back down to the low $20s," says Leuffer, "but we won't see $15-a-barrel oil again."

By Leuffer's reckoning, a small number of oil companies are appealing buys—even bargains. He favors USX, the former U. S. Steel, which gets about 75% of its earnings from oil operations. The company, he maintains, is a bargain compared with its peers by a number of criteria, including price—$34—to cash flow, about $9 a share. "Cheapest in the group," says Leuffer. His other favorites include Unocal, which he also believes is undervalued. He calculates the value of its assets at $46 a share, vs. a share price of about $33.

Still, oil stocks have had quite a run, and it's not surprising that they have begun to attract Wall Street bears. "The oils would definitely be a fruitful place to look for shorts," says Joseph L. Feshbach, a general partner of Stockbridge Partners Inc. of Palo Alto, Calif. However, Feshbach is not shorting any oil companies at present.

For bears, the economic disarray brought about by the Iraqi adventure is like a gust of fresh desert air. Among other things, it has put pressure on the debt-laden companies that short-sellers have long favored. The Iraq crisis has "negative implications for the economy. And a weak economy can put highly leveraged companies under," says Feshbach. "At times like this, one feels more comfortable being short." Among the leveraged companies that the Feshbachs are shorting are Consolidated Freightways, a trucking company; Banner Industries, an aerospace-parts distributor; and Great American Communications, a Carl Lindner company that owns broadcasting stations.

Gold has not been a favorite of contrarians—or anyone else—for a long time, but there are signs that the yellow metal has hit bottom. It had slipped to $347 an ounce—a four-year low—on June 14, and it inched back to around $370 before the Iraqi invasion. A weaker dollar helped, as did a slowdown in the pace of gold production.

Then came the Iraqi invasion. Gold has followed the old cavalry maxim: Ride to the sound of the guns. Prices jumped $13, to $387, on news of the invasion on Aug. 2, but drifted lower to close at $377 on that day. Since then, the continued tensions have sent gold prices toward $400, a level not seen since March. "The market is being news-driven right now," says Ian C. McDonald, precious-metals manager at Credit Suisse in New York. "I don't think the tension will ease until [the Iraqis] withdraw."

ALL THAT GLITTERS. European currencies, especially the Deutschemark, have remained strong, thanks to the thaw in Eastern Europe and relatively high interest rates. That has made Western European currencies an alternative to gold in times of stress. But if the military confrontation in the Middle East escalates, the metal should regain much of its luster. Analysts say gold could swiftly top $400 and might hit $425, in the event of heightened tensions.

And although the $800-an-ounce prices of a decade ago are unlikely to return, gold is beginning to find favor far from the ranks of the gold bugs. It may be a smart way to hedge against the turmoil in the Middle East. "Gold hasn't moved a lot, but that could change very quickly if you get bad news," says Bhirud at Oppenheimer. "I would use gold as a bet on the political situation."

If investors want to take a flyer on gold, buying gold coins—such as the

SOME STOCKS THE PROS PICK AND PAN

	Price 7/31	Price 8/8
BUY		
AN BARRICK RESOURCES — -based gold-mining company; has shown strong earnings growth	22⅛	21¼
IA GAS SYSTEM — l-gas company, well-positioned in the Northeast	46¼	46⅜
essential cyclical; offers tempting yield	41½	38⅛
HARLAND — ix years of uninterrupted earnings and dividend growth	22¾	22
n the revival of high tech and a return to normalcy	111½	103⅛
argest natural-gas distribution network	39¼	40
MORRIS — on-resistant, undervalued, and earnings growth is strong	47⅞	45⅝
ow makes it cheapest in the oil group	34½	33½
pany whose assets could be worth $46 a share	31	32
RT — n oil-patch states, will gain as local economies improve	31⅜	30¼
SELL		
INDUSTRIES — ce company short-sellers view as excessively leveraged	13	10⅝
L BANK — center bank with disappointing earnings	23	23½
DATED FREIGHTWAYS — y its shares could decline if its debt proves onerous	14⅞	13⅜
MERICAN COMMUNICATIONS — Carl Lindner, targeted by short-sellers because of its debt	5¼	4⅝

DATA: BW SURVEY OF ANALYSTS AND MONEY MANAGERS

American Eagle and Canadian Maple Leaf—is perhaps the purest play. Goldmining stocks are another time-honored way to play the gold market, although such issues are considerably more volatile than the metal itself. Martin Wiskemann, a portfolio manager of the $330 million Franklin Gold Fund in San Mateo, Calif., likes American Barrick Resources in Toronto. He also likes Placer Dome and Teck, both of Vancouver, B. C. Vahid Fathi, a gold analyst with Prescott, Ball & Turben Inc., based in Cleveland, favors Corona, a less well-known miner in Canada. Most of the major Canadian mining companies trade on U. S. stock exchanges, including the New York Stock Exchange, and the the NASDAQ national market system.

Less easily available are South African gold stocks, but Fathi maintains that they are worth a look. To play South African gold shares, he suggests ASA, a closed-end fund that invests heavily in South African mining shares. One plus for South African shares was the announcement on Aug. 6, overshadowed by the events in the Middle East, that the African National Congress would give up its guerrilla war.

At the opposite end of the spectrum, fixed-income investors have the most to fear from the upward spiral of oil prices. On Aug. 6, long-term bonds fell 2.5 points. And analysts note that rates on long-term bonds may climb to as high as 9.25%. "This is a difficult situation for the Fed to be in. We're stuck with an economy that's as driven by external growth as by internal growth," says Maria Fiorini Ramirez, president of Ramirez Capital Consultants. After all, she notes, U. S. exports are vulnerable to slowdowns in Japan and European Economic Community countries. Ramirez believes long-term bonds may go as high as 9% by yearend.

That would be awful news for investors in the ubiquitous fixed-income mutual funds. Unlike holders of the individual bonds, investors in bond funds cannot simply wait until maturity to cash in their holdings at par. During the last major interest-rate spike, in April, 1987, bond-fund investors were severely hurt and cashed out en masse, feeding the dov turn. The bright side of t fixed-income picture is th an upturn in interest ra presents a buying oppor nity for those wishing lock in high yields. It's strategy that will pay so long as inflation mains under control.

'Gold hasn't moved a lot, but that could change very quickly if you get bad news'

SURESH L. BHIRUD
Oppenheimer & Co.

GOOD BUYS. Some inve ment professionals ins that the Mideast war, depressing a host of sou stocks, presents a buyi opportunity for not ju bonds but even some bl chip stocks. Shearson L man's Sherman feels th automobile stocks—no bly Ford Motor Co.—ha been driven to extreme low price-earnings rati and high dividend yiel IBM, likewise, has be trounced by the market recent days. Ditto for W Mart Stores. Malcolm F nie III, managing direct of Harbor Capital Manag ment, notes that the discount gian "backyard" is the Sunbelt, which stan to gain from a revival of the oil-prod ing states.

Money manager Martin D. Sass fe that the market setback gives investo an opportunity to pick up, on the che a number of depressed companies. especially likes Philip M ris, noting that the c sumer-products gian "earnings are growing 20% a year, it is recessi resistant, and it sells less than the market mu ple." Sass also likes Jo H. Harland, a financ printer that has enjoyed years of uninterrupt earnings and divide growth.

Investing in times stress, of course, can hazardous. And this cri is particularly hairy b cause so much depends the whims of one ma Fortunately, though, t market offers enough o portunities so that ev the small investor can more than just sit a watch.

By Gary Weiss in N York, with Mark Ivey Houston, John Meehan New York, and bureau ports

'The oils would definitely be a fruitful place to look for shorts'

JOSEPH L. FESHBACH
Stockbridge Partners Inc.

AFTER A LITTLE REHEATING, MR. COFFEE IS JUST FINE

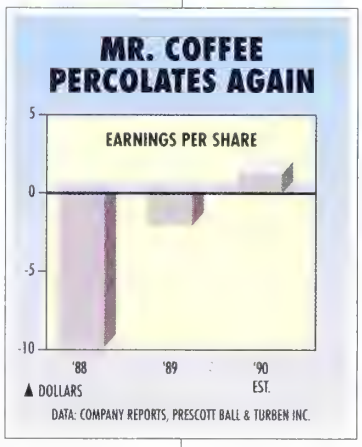
ow the company restructured its way into a successful IPO

After years of sitting on America's kitchen counters, Mr. Coffee is now available over the counter. e sale of Mr. Coffee Inc.'s 4 million ares of common is the reward of a porate turnaround. The company that ginated the automatic drip coffeeker for the home in 1972 almost be- ne another casualty in the 1980s rout binge. Mr. Coffee shows how reving a crushing debt load can once re let a company pursue investments product development and advertising. This LBO had a rocky time almost from start. First was the timing: The rout firm of McKinley Allsopp Inc. ght Mr. Coffee from founders Vint G. Marotta Sr. and Samuel L. Glazfor $82 million, a generous 15 times nings, three months before the 1987 ck market crash. McKinley Allsopp John M. Eikenberg, the former Re- e Ware Inc. president imported as , couldn't find affordable permanent ancing to pay off the high-rate tempo- y loans floated to do the buyout. apped for cash, Eikenberg restruced the company. He discontinued h losers as its ground coffee brand held down advertising. Sales dwinl as competitors came on strong.

ID GROUNDS. The bad s prompted a shakeup. Kinley Allsopp relinshed control of the compao an investor group headby one of the firm's ner officers, Robert M. lace. His Gateway Advi- Group, which originally a 40% stake in the comy, injected an additional million to protect its inment and keep Mr. Coffrom drowning in debt.

Gateway-controlled ed ousted Eikenberg and ated Mr. Coffee's new f financial officer, Peter McC. Howell, to CEO. lthough Eikenberg ars that he created the nework for the reversal Mr. Coffee's fortunes, the nge came on Howell's ch. "Mr. Coffee lacked inative thinking until Peter vell took over," says Camille S. Thomas, senior buyer at discount retailer Target Stores. Among Howell's first repairs was providing retailers with more predictable deliveries. He moved manufacturing back to the U. S. from Hong Kong and China so Mr. Coffee could fill orders faster. The company won supplier excellence awards last year from Target and Wal-Mart Stores Inc.

Fueling the rejuvenation are new products. The brightest star is the Iced Tea Pot, which brews two quarts of iced tea in less than 10 minutes. Introduced in May, 1989, the product accounted for nearly 15% of Mr. Coffee's 1989 revenues of $128 million. The Iced Tea Pot also helped reclaim upscale consumers it had lost to competitors selling trendily designed coffeemakers. Recently, the company brought out two more entries for the upper-end crowd: the microchip-driven Expert, a high-tech version of the basic coffee machine that brews faster, and Quick Brew, a device that fixes a single mug of coffee in a microwave oven. Sales for the first half of 1990 surged 63% over the 1989 period, to $77 million.

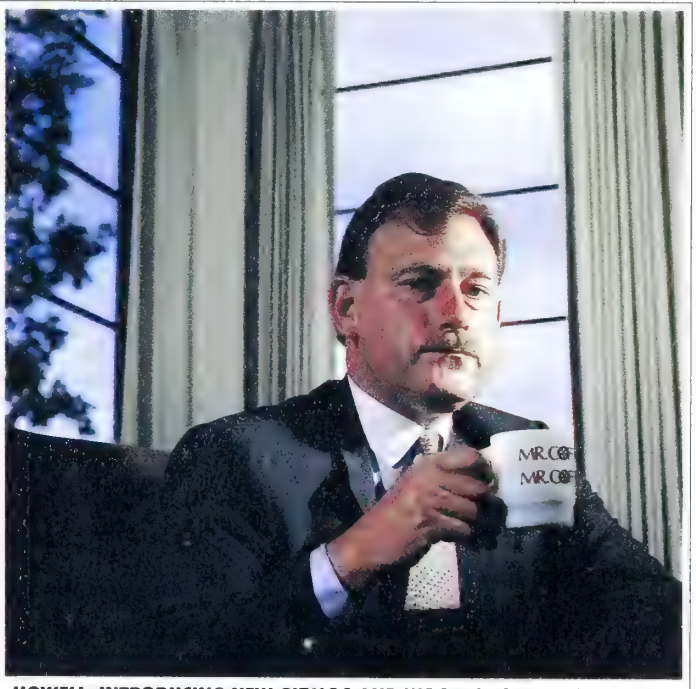


The success of the public stock offering in June has given the company more room to maneuver than it has had in years. Mr. Coffee has reduced its debt to 47% of capital, down from 84% a year ago. Earnings per share are on the upswing and should turn positive this year (chart). The stock, offered at 10 per share in June, had almost reached 15 on July 26 before the Kuwait-inspired market retreat drove it down to 11⅞ on Aug. 8. Where bad timing hurt the LBO, good timing has aided the stock sale. Public offerings are finally showing signs of emerging from their post-1987 crash slump. Benefiting were several Gateway investors, who realized a 31% profit.

MANY A SLIP. The rejuvenation of Mr. Coffee isn't complete yet. The Iced Tea Pot brews a beverage whose popularity can't approach that of coffee and typically falls off in the winter months. Prescott, Ball & Turben Inc., a Cleveland securities firm, estimates that Iced Tea Pot sales will more than double this year, to $50 million, but level off after that. And although it remains the sales leader, the company has been slipping in market share for auto-drip coffeemakers—from 32% in 1987 to 27% in 1989. That's "unconscionable," says Gael Simonson, director of brand marketing at No. 2 competitor Black & Decker Corp., whose share of the $305 million market has grown to 18% from 16% in the same period. Mr. Coffee's goal is a 35% share by 1995.

That means a marketing war is brewing among coffee-machine makers. "This company was built on advertising, and it's being rebuilt on advertising," asserts Howell, who has budgeted $11 million for national TV and radio ads this year, almost triple the 1989 level. The company is trying to rehire original pitchman Joe DiMaggio. Now that the company has its finances in order, Joltin' Joe's influence could boost Mr. Coffee's fortunes like an early-morning sip of java.

By Maria Mallory in Cleveland



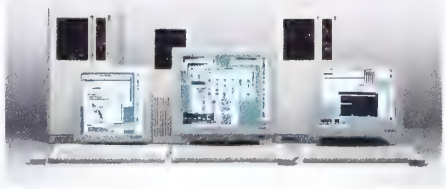
HOWELL: INTRODUCING NEW GIZMOS AND WOOING JOLTIN' JOE AGAIN

Great minds think alike. And our new MultiPersonal™ Computers think just like every computer in your company. Not to mention every human brain that makes your business® tick.

Think about it. When you need information, your brain remembers only the facts, not where you've stored them.

The intuitive, graphical interface of a MultiPersonal Computer works just like your brain. When you need information, you just click on an icon. The MultiPersonal Computer does all the rest: Locates the file. Navigates the network. And puts the file in a window on your desktop, running in its native application.

The MultiPersonal Computer integrates the X-Window system, Motif, and Looking Glass in an intuitive point-and-click interface. And the large-screen Network Display Stations make UNIX as graphical as it is powerful



A MultiPersonal Computer gives you transparent, simultaneous, and secure access to any computer on your network: Mainfram Minis, Macs, and PCs.

And every MultiPersor Computer is built on the ve tile client-server architecture to give users the power they need, when they need it. The power of our M88000® RISC microprocessor for 60 plus MIPS* performance. The power of UNIX® System

Now You Can Pick Every Brain In Your Company.

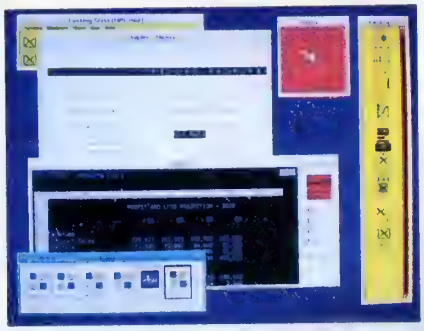
MULTIPERSONAL™ COMPUTER

Network Computing With A Personal Touch™

*MIPS [illegible] Millions of Instructions Per Second [illegible] Motorola, the Motorola Computer Group is a member of Motorolas General Systems Sector. Motorola, MultiPersonal, M88000, and the Motorola logo are trademarks or registered trademarks of Motorola, Inc. [illegible] are trademarks or registered trademarks of their respective holders.

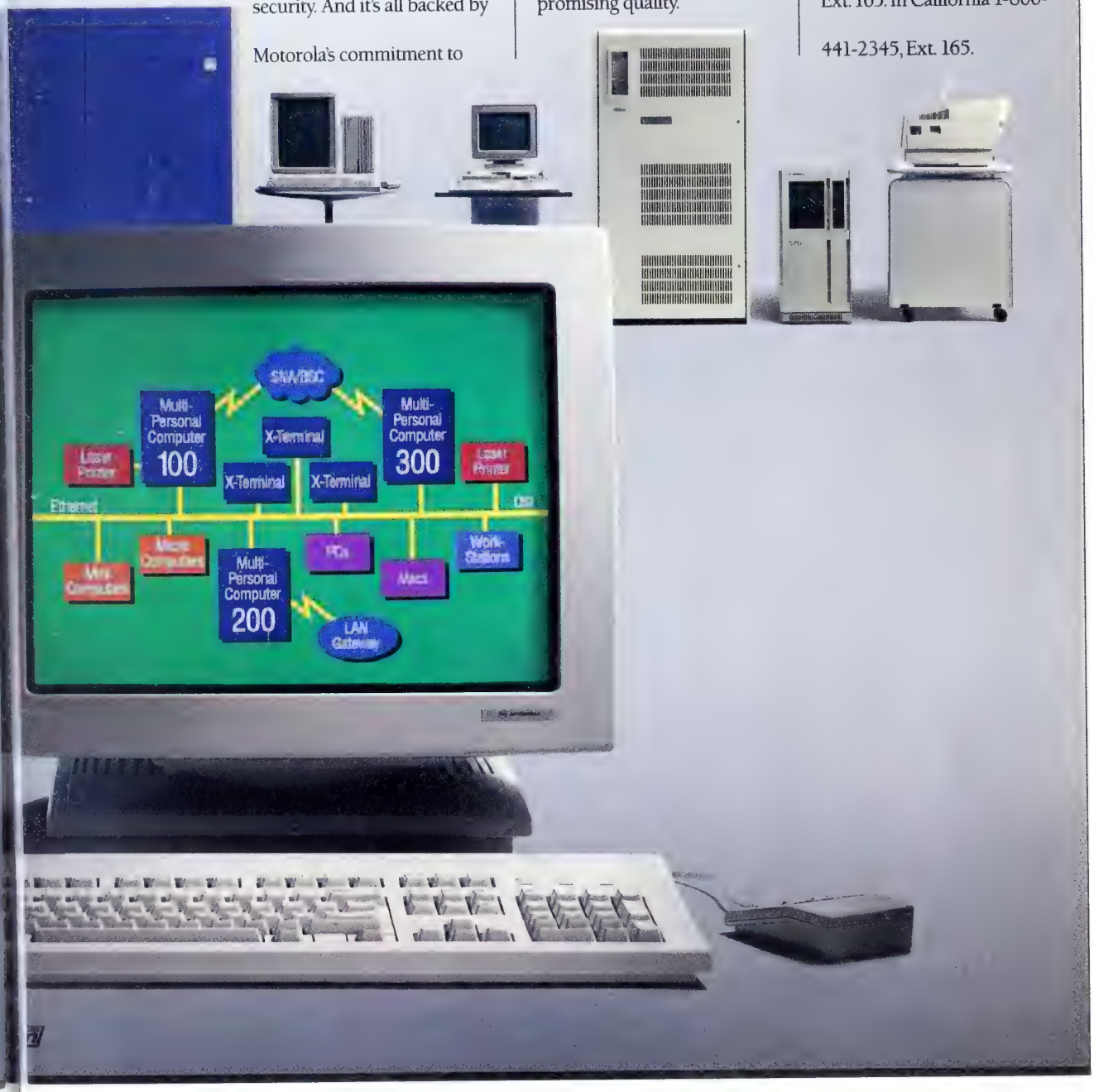
X-Windows,™ for true
ti-user, multi-tasking capa-
es. Plus the power of
isticated business applica-
:: Uniplex™ office auto-
on, FrameMaker™ corporate
ishing, and Informix® or
Oracle® relational
databases.

It's the most
cost-effective way
to unify your com-
pany, without losing
control, or sacrificing data
security. And it's all backed by
Motorola's commitment to
open standards and uncom-
promising quality.



If you're looking to link
every mind in your company,
and give everyone more power,
don't just choose any computer.
Pick a MultiPersonal Computer
from Motorola.

Call 1-800-556-1234,
Ext. 165. In California 1-800-
441-2345, Ext. 165.



MOTOROLA
Computer Group

CORPORATE FINANCE

PRUDENTIAL PUTS ITS MONEY WHERE THE GROWTH IS—ASIA

Staking midsize companies, the insurer is earning 60% returns

During a recent visit to Hong Kong, Prudential Insurance Co. Chairman Robert C. Winters made a side trip to China, braving a downpour to see a bustling factory where 3,000 workers churn out $300 million worth of toys each year for export around the globe. For Winters, the trip provided more than sightseeing. It gave him a chance to check out one of the latest bets in the Pru's burgeoning Asian leveraged-buyout business.

From toys in China to bamboo plantations in Thailand, the Pru is making a bundle on buyouts in a region where American-style LBOs are nearly nonexistent. Over the past four years, the Newark (N. J.) insurance giant has sunk $150 million into buyouts, earning $44.5 million so far by taking some of its clients public. At least $100 million more already has been earmarked for further expansion, probably in the Philippines, Indonesia, Thailand, Malaysia, and Australia. And the Middle East crisis that has rocked stock markets may bring in more business as Asian companies seek funds through direct investment.

Unlike Wall Street's megabuck LBO dealmakers, Prudential is focusing on fast-growing family-owned companies. The Pru provides guidance and some new equity, lining up bank loans to raise more capital. Take the Chinese toy factory owned by Hong Kong Toy Centre International Ltd. Its Playwell toys are a staple of Woolworth stores in Europe, but the company needed capital to make headway in the U. S. Last fall, the Pru's Hong Kong-based LBO unit, Prudential Asset Management Asia Ltd., bought 30% of the toymaker from founder Victor Lo for an undisclosed sum.

With the Hong Kong stock market rebounding this year, Pru Asia took 25% of the company public in July, raising $10 million to repay bank loans and finance a North American export push. Lo's family, which kept 52.5% of the company, and the Pru, which retained 22.5%, have seen the value of their shares climb 40%, to 21¢. "These are not megabuck deals like in the States," says Pru Asia President Michael C. Kwee. "But they are good, solid deals."

Kwee and three other Hong Kong wheeler-dealers lured away from American International Group Inc., Chase Manhattan Bank, and other houses have been instrumental in crafting the Pru Asia buyout strategy. Most boast ties to the close-knit network of Chinese tycoons in Hong Kong and Southeast Asia. The family of Pru Asia Chairman Victor K. Fung, 46, for example, heads the large Hong Kong trading house Li & Fung. And Kwee, 44, is the son of one of Indonesia's biggest timber barons.

Kwee's first deal was in 1986, with Dragon Seed, a chain of Hong Kong department stores owned by three C nese families. Several of the family s ons wanted to sell their stock, a Kwee, who had known them since hi school, jumped in. The Pru bought 5 of the chain for $9 million and instal new management. After two years, sold out to a Japanese department st chain for $15 million.

COOKED BOOKS. The prospect of ev more LBOs has prompted Pru Asia open offices in Singapore, Malays Thailand, Taiwan, and Japan, giving t insurer stakes in some 30 companies. Japan, the Pru helped engineer the co try's first LBO, the takeover by lo managers of the Japanese arm of W ray Capital Corp.'s Simmons Co. beddi unit. And Pru bought 95% of debt-b dened Fort Howard Corp.'s Hong Ko unit for $11 million, renaming it Paci Cup Co. Now the prime supplier of p per products to McDonald's Corp. a other expanding fast-food chains in Asian countries, Pacific Cup recen won an exclusive contract to supply cu to Coca-Cola Co.

The Pru's moves in emerging Asi markets have not been entirely troub free. Kwee admits that two unidentifi buyouts aren't performing well, thou they are still profitable. And Asia's c ative accounting practices remain a p rennial headache. To help it penetra the multiple sets of books many ent preneurs keep to avoid taxes, the P maintains a staff of 75 to pore over nancial records of potential clients. B with Prudential spreading its ca across the world's most dynamic regi "you can't help but grow," says Pru Fung. Can Fung extend Pru's 60% year growth spurt? Perhaps not. But least he's looking at the right economi

By Pete Engardio in Hong Kong, w Joseph Weber in Philadelphia and Willi Glasgall in New York

CHAIRMAN FUNG (FRONT): HIS PRU ASIA HELPED ENGINEER JAPAN'S FIRST LBO

SOME OF THE PRU'S ASIAN BETS

Company	Industry	Percent ownership	Book value Millions
SIMMONS Japan	Bedding	75%	$29.0
GUL TECHNOLOGIES Singapore	Circuit boards	44	13.0
PACIFIC CUP Hong Kong	Paper goods	95	11.0
HOUR GLASS Singapore	Luxury retailer	40	5.8
ACER Taiwan	Computers	4	6.0
TAI WAH HOLDINGS Thailand	Agribusiness	25	5.0

DATA: PRUDENTIAL ASSET MANAGEMENT ASIA LTD

BECAUSE
product tamperings and recalls, threatened takeovers, breaches of corporate ethics and environmental disasters are unpredictable...

BusinessWeek

presents

CRISIS COMMUNICATIONS:

Strategies of Conciliation and Confrontation

A series of full-day interactive seminars with

HERB SCHMERTZ
President, The Schmertz Co., former VP Public Affairs, Mobil Oil Corporation

ANGELA ZIZZI DAILEY
President, The DAI Communications Group, former Sr. VP, Drexel Burnham Lambert

Arm your senior executives with a winning corporate crisis communications strategy.

For Information Call:
1-800-445-9786

Fax: 1-212-512-3435

SPACE IS LIMITED

BY GENE G. MARCIAL

WILL THE JAPANESE GET A CHUNK OF TIME WARNER?

Only the valiant, it seems, are sticking with Time Warner. Even way before the market's sharp Mideast-related dive, the stock of the media and entertainment giant had been heading south, from a 52-week high of 146 to a low of 87 in April. The recent Iraq-Kuwait crisis pummeled the shares some more, to 84. "The stock is viewed with the disdain normally accorded a skunk walking into a church social," says analyst Dennis McAlpine of Oppenheimer.

But not for long, if some smart-money players are right. They have started scooping up shares, even though they concede that the company is burdened with debt of some $11 billion and that $5 billion worth of new preferred securities have exacerbated concern about Time Warner's financial health. There is also a possibility of regulatory tightening in the cable TV industry, in which Time Warner is a major player.

But the betting among some pros is that management will soon take steps to raise cash and pay off part, if not all, of the debt quickly and boost the value of the sagging shares. The head of an investor group that owns a 2%-to-3% stake warns that "a proxy fight will erupt should the stock stay in the low 80s." Big investors "haven't forgotten the $200-a-share bid that Paramount Communications had offered to acquire Time before it merged with Warner Communications," he adds.

'MAJOR BOOST.' Members of this group think management is aware that a proxy fight could develop if the stock languishes at current levels. Rumors have Time Warner planning to sell 49% of the record division to a large Japanese company and 20% to 25% of the magazine division to the public.

"If Time Warner proceeds with any or all of these rumored moves, it will be a major boost for the company and its stock," says Herb Ehlers, president of Eagle Asset Management, which holds a large position.

Ehlers puts the private-market value of the record division—the world's largest—at $6 billion. This year, it's expected to contribute operating profits of $600 million. Ehlers figures the magazine unit, including crown jewel *Time*, is worth $5 billion. Selling 49% of the record unit and taking the magazine operations public, he says, will not only raise badly needed cash but also bolster investor confidence.

Oppenheimer's McAlpine says the company has a strong cash flow and healthy operations. It will show operating profits of $2.3 billion in 1990 and as much as $3.2 billion in 1993.

A Time Warner spokesman conceded that the company has received several offers from foreign groups for a "strategic alliance." Any move to form such a venture, he said, won't be because of financial need but to make Time Warner a global leader in media and entertainment.

APPLAUSE FOR A 'SMART' PIANO

Investors in Software Toolworks sighed with relief on Aug. 3, when the company reported a 268% explosion in earnings and a 74% jump in revenues for the June quarter. The good news couldn't have come sooner, because Toolworks' stock plunged from 24 to 10 in mid-June after skeptics—and the shorts—questioned whether the company could stay on its fast growth track.

The stock of this maker of software for personal computers and Nintendo entertainment systems has yet to respond to the earnings news. But some bargain hunters and avid growth investors are buying. "The company's earnings momentum has accelerated due to its new products and diversified markets," says Robin Manners West, director of research at Ladenburg, Thalmann's Lanyi Div. She discovered the stock a year ago when it was selling a 4½. Now, she sees it roaring back t its high of 24 once investors recogniz the company's "huge growth poter tial." Toolworks' latest product, th Miracle, is an electronic piano with art ficial intelligence that provides an eas piano-teaching system. Manners Wes expects it to be the company's "nex hot winner."

Bob Kleibert of Piper, Jaffray & Hopwood believes Toolworks will sho "very strong growth in all segments o the business" in the coming quarters The Miracle piano will produce sales o $60 million and earnings of 35¢ a shar in 1991, he says, while Nintendo sof ware will add $65 million in sales an earnings of 55¢ a share. Other sof ware sales and licensing will produc $55 million in sales and earnings of 65 a share, says Kleibert. In all, he fig ures Software Toolworks' earnings wi jump to $1.55 a share in the year en ing Mar. 31, 1991, vs. 1990's 14¢.

A LIFT FROM ERTE'S LEGACY

When Art Deco artist an sculptor Erté died in Apri demand for his work surged. And the shares of Dyansen, retailer of original fine art and sculp ture, vaulted from 1⅛ to 3 in less tha a month. Dyansen, which trades ove the counter, operates 14 galleries an represented Erté, whose sculptures ac counted for 47% of Dyansen's tota 1989 sales. The works helped Dyanse bounce back into the black in 1990' first quarter, after posting a loss in th fourth quarter of 1989.

Since then, the stock has cooled trading from 1¾ to 2¼, partly becaus of the slowdown in the economy an investors' perception that the boom i art collecting and art prices may be o the wane. But in late June, Dyanse reported that the second quarter ma produce record sales and earnings.

Some savvy investors say the compa ny's early earnings indications of 11 to 13¢ a share for the quarter may b too low, and they expect Dyansen t post earnings of 17¢ to 18¢ a share. I 1989's second period, it earned only 7 a share. Dyansen may do better tha expected because it has slashed costs— mainly in warehousing and senior-mar agement compensation. More impor tant, early signs indicate strong sale at the newly opened gallery in the Ta Mahal in Atlantic City, and sales o Erté works are exceeding expectations

"The *All The President's Men* of the savings and loan crisis."

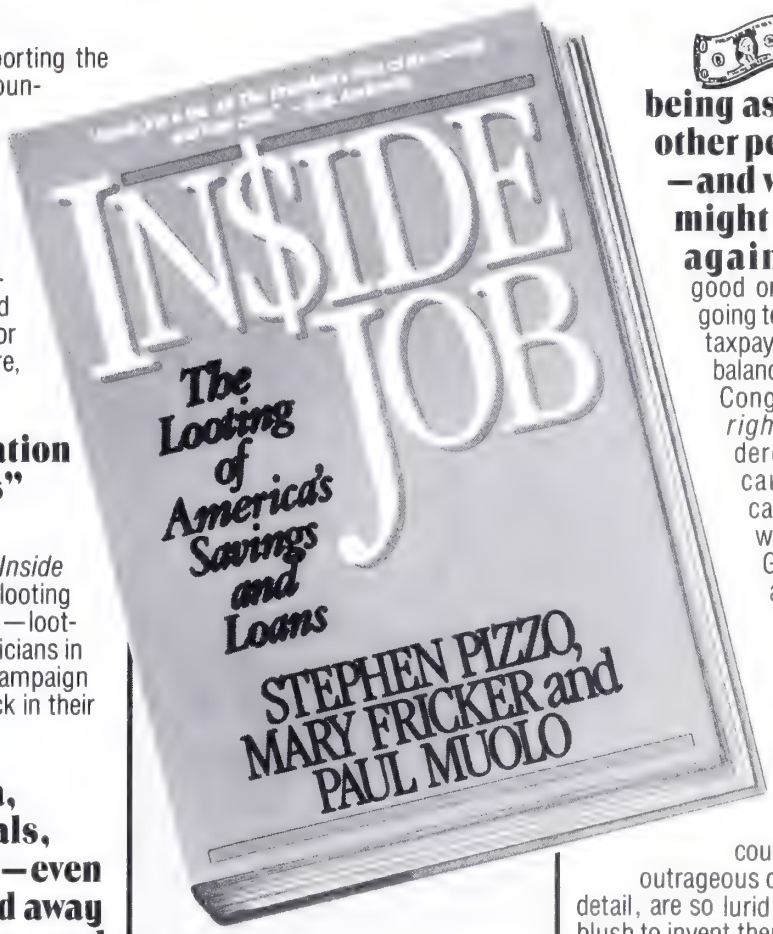
—Jack Anderson, Syndicated Columnist and Pulitzer Prize-winner

Behind the grim headlines reporting the collapse of S&Ls across the country... beneath the tedious arguments about "bail-outs" ... between the lines of President Bush's multi-billion dollar proposal... lies one of the most shocking and absorbing tales of human greed and corruption ever recorded. And *Inside Job* brings together—for the first time ever—the entire, unexpurgated story. Discover:

Why deregulation of the "thrifts" ended up as a multi-billion-dollar bust. *Inside Job* traces the seven years of looting that started after deregulation—looting that went unheeded by politicians in Washington who received fat campaign donations from the culprits back in their home districts.

How the Mafia, corrupt officials, appraisers, auditors—even drug dealers—walked away with America's hard-earned savings. *Inside Job* introduces you to a financial hit-and-run fraternity (see "Rogues' Gallery") that capitalized on regulatory weaknesses and thoroughly fleeced the industry. Yet few of these men have been forced to repay what they stole or spend even a day in jail!

Which prominent political figures turned their backs on regulators, trying to clean up the industry. *Inside Job* names names and, hold onto your hats, the long list includes: Former Speaker of the House Jim Wright, Senators Cranston, DeConcini, and Glenn, Former White House Chief of Staff Donald Regan, and many more.



A ROGUES' GALLERY

Here's the lineup of some of the con artists:

UPI / Bettmann Newsphotos

MIKE RAPP (A.K.A. Michael Hellerman) was booted out of New York's securities business, brokered for the mob, then turned and sent 90 racketeers and mobsters to jail. By the mid-80's, he himself had conned millions from thrifts across the country, using his new federally-provided identity.

Lee Shively / The Shreveport Times

HERMAN BEEBE was linked to almost every dying S&L in Louisiana and Texas and was a buddy of the most powerful politicians in those states. He was charged with $30 million in fraud involving 16 thrifts.

FBI

MARIO RENDA: The S&L's own "Typhoid Mary," this former dance-teacher-turned-deposit-broker, passed $6 billion through 160 banks and thrifts, 104 of which have since collapsed.

What you're being asked to pay for other people's greed—and why the fiasco might happen again. No matter how good one's accountant, it's going to cost every American taxpayer at least $2,000 to balance the checkbook, and Congress is considering *right now* radical bank deregulation that can cause an even larger catastrophe. How can we stop the madness? Get *Inside Job* for the answers and the inside story today.

OUTSTANDING PRAISE FOR INSIDE JOB:

"A chilling account... some of the more outrageous cases, spun out in rich detail, are so lurid that a novelist would blush to invent them."
—*New York Times Book Review*

"This is a very good book—must reading."
—*San Diego Union*

"The disturbing tale of the biggest bank heist in history—one that goes beyond the vaults of financial institutions and picks the pocket of every American."
—Congressman Jim Leach, House Committee on Banking, Finance, and Urban Affairs

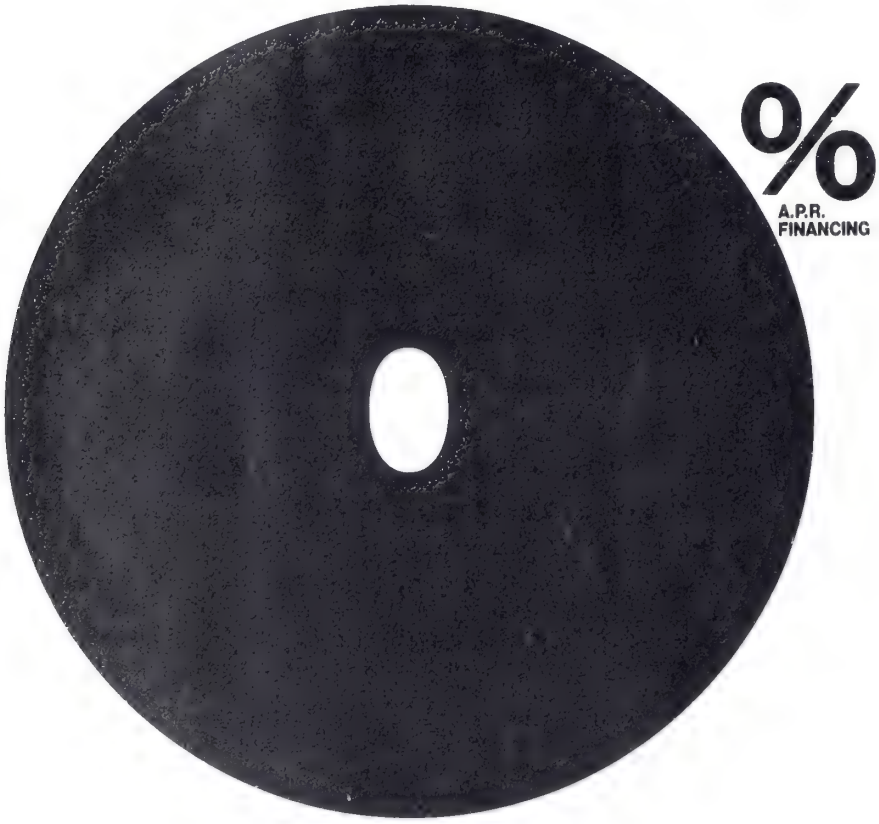
"Richly textured and suspenseful, studded with enough murder, arson, bribery, and sex that you won't want to wait for the movie." —*Business Week*

Available at your bookstore, or by calling with credit card orders:
1-800-2-MCGRAW

McGraw Hill

The Ultima

It doesn't just save you money.



Or up to $1000 cash back.

Plymouth Acclaim
Save $750*

Chrysler Imperial
Save $1000*

Dodge Spirit
Save $750*

Plymouth Sundance
Save $750*

Every incentive program saves you money. This is the one that goes an important step beyond. It can save your life.

First, let's save you money. With The Ultimate Incentive you get Zero Percent Financing or a cash saving of up to $1,000 depending on the car you choose.* And that's even before you've made your best deal.

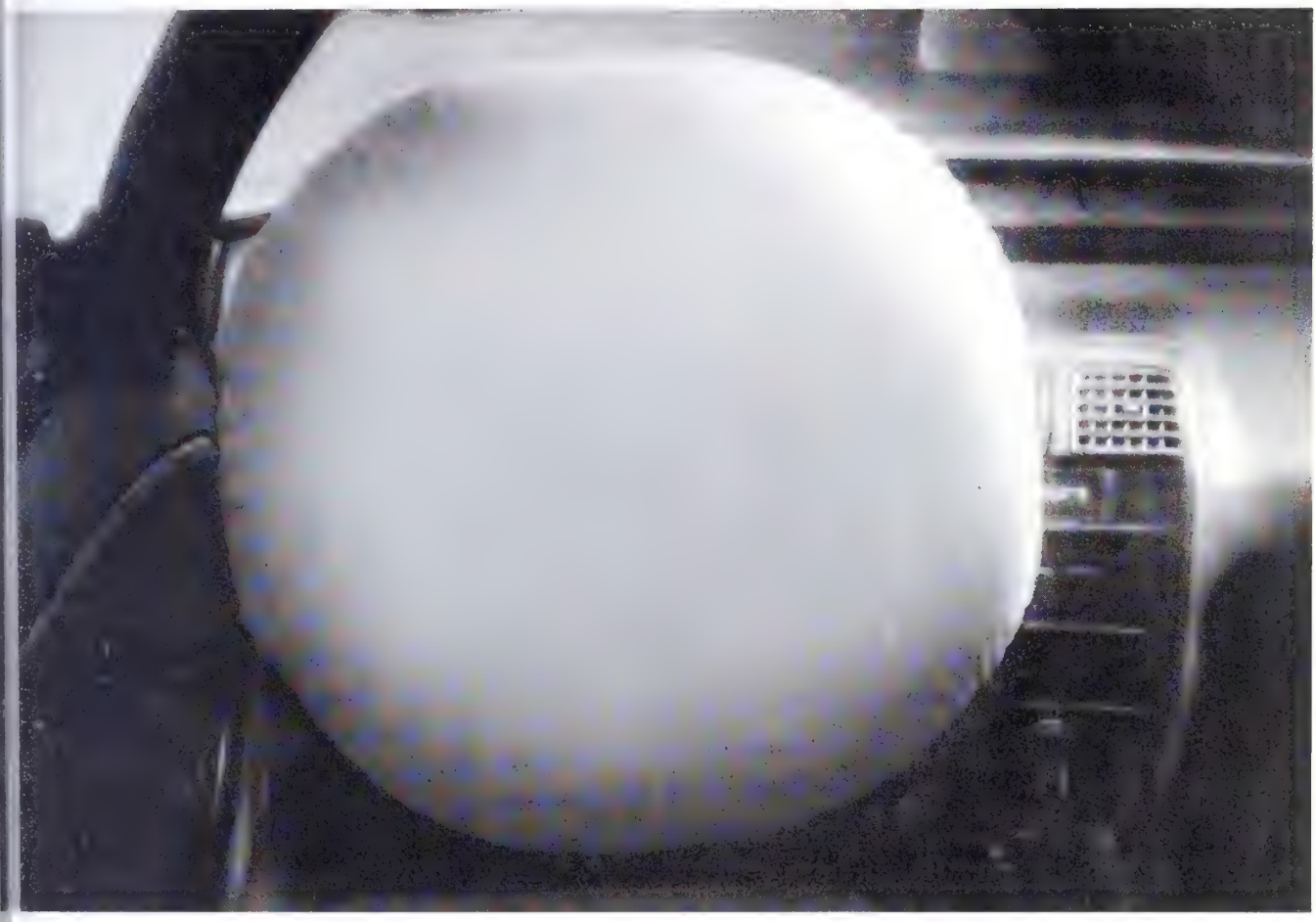
Now, saving your life. Every car shown here con with a driver's air bag. On some of the competition cars, an air bag is an option that could cost you $8

The cars themselves: They're from the best of

[illegible] Chrysler Credit. Longer term rates available. Hurry! Offer ends soon. **Based on an independent preference test of 50 people who would consider buying an

e Incentive.

It can save your life.



Dodge Dynasty
Save $1000*

N.Y. Fifth Avenue, Salon and Landau
Save $1000*

Dodge Shadow
Save $750*

Chrysler LeBaron Sedan
Save $750*

'sler. Including the Dodge Spirit and Shadow; nouth Acclaim and Sundance. They beat the Honda ord and Civic for overall superiority.** There's also uxurious Chrysler Fifth Avenue and Dodge Dynasty he Chrysler Imperial, which was recently given the est quality rating of any American-built car.***

on 1990 Earn Buyer Study, Consumer Attitude Research Inc. Imperial rated highest in 1 of 16 quality categories

Now, you can see why this really is The Ultimate Incentive.

It doesn't just save you money. It can save your life.

Advantage: Chrysler.

CHRYSLER · PLYMOUTH · DODGE

CAN CRAY REPROGRAM ITSELF FOR CREATIVITY?

Its bureaucratic president is gone, and resident geniuses are free to resume their free-form style

Quick and agile. That's what big, ponderous companies wish they could still be. So they diligently hack away at bureaucracy, hoping to unleash the creative energy—since faded—that first brought success. Managers of small companies watch and swear they'll never let the jungle of red tape take root in the first place.

Supercomputer maker Cray Research Inc., with $785 million in annual sales, only recently got to be truly big. And only recently did the tendrils of bureaucracy begin curling around its demanding but free-form culture. On July 12, John A. Rollwagen, the 49-year-old chairman, asked his president and chief operating officer to step down. His offense? Fondness for paperwork and other bureaucratic burdens.

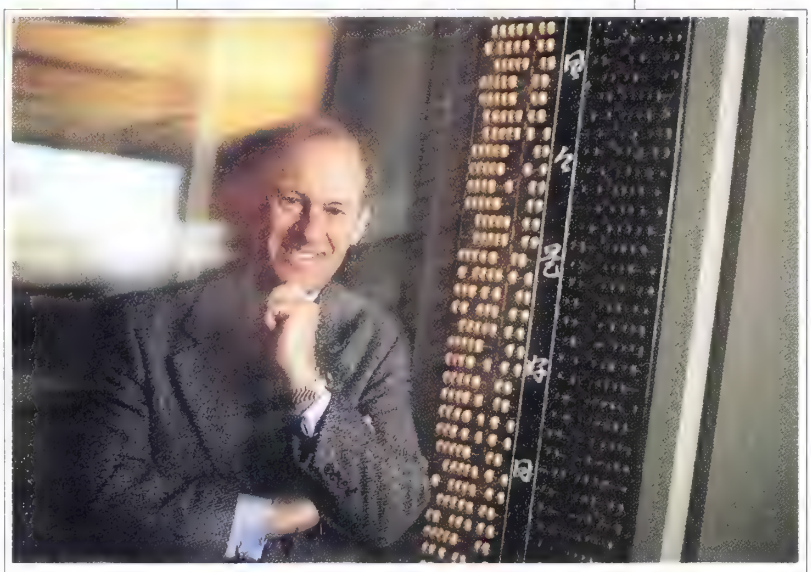
Marcelo A. Gumucio, who had taken over the presidency from Rollwagen in 1988, agreed to resign after Rollwagen became concerned about morale. As Cray faces unprecedented challenges, Gumucio's demands for reports, meetings, and procedures were clashing with the "Cray Style," a treasured manifesto that hangs on walls throughout the company. "At Cray Research, we take what we do very seriously, but we don't take ourselves too seriously," it reads in part. "Cray people trust each other to do their jobs well . . . ."

BIG SMOTHER. Early this year, Rollwagen says, employees began telling him that they felt management no longer trusted them. Gumucio was demanding ever more projections, reports, and analysis to keep tabs on workers' every move.

By all accounts, 52-year-old Gumucio is a highly competent electronics industry veteran. He describes his decision to leave as an amicable divorce. Hired from Northern Telecom Inc. in 1983, he headed Cray's marketing team for five years, and sales quadrupled. By putting him in charge of daily operations in 1988, Rollwagen hoped to concentrate on strategy and build relations with key customers. Facing little competition, Cray had thrived until then without strict controls.

But as things got tough—Cray's revenues have been flat for two years, and earnings dropped by 43% in 1989—Gumucio's formal style produced what Rollwagen calls an atmosphere of "fear and blame." Gumucio pushed employees to commit to aggressive development, manufacturing, and sales projections. But "there was a feeling that somehow you'd get slapped if you didn't reach your target," says one engineer. So managers began lowballing estimates. Rollwagen became alarmed. "We're at the leading edge of technology here," he contends. "If we only shoot for what we know we can accomplish, it's not good enough."

When the market slowed, Gumucio had a traditional response: a sharper focus on specific goals and a firm lid on costs. His speeches to the troops, in which he stressed the dangers, fell flat. In contrast, Rollwagen was the inspiring preacher man. Says marketing chief Edward A. Masi: "With John, somehow you know you're going to blast through." Gumucio says it was more in keeping with Cray's traditions to leave, rather than change his style: "If you feel strongly about something [at Cray], you stick to your guns."



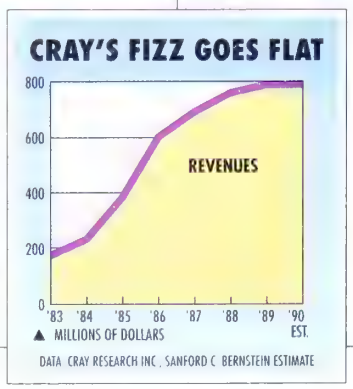
BACK IN CHARGE: CEO ROLLWAGEN IS KNOWN AS AN INSPIRATIONAL FIGURE

Now, Rollwagen is again fully in charge. And Cray, which still leads the supercomputer market, faces stiff challenges: from below by Convex Computer Corp., selling $1 million supers, and from the high end from Japan's electronics giants and IBM. Also after Cray are numerous startups, including Cray Computer Corp., which founder Seymour Cray spun out of Cray Research in 1989.

Meeting such challenges will require renewed discipline. "It's interesting that they see [Gumucio's style] as downbeat instead of realistic," says Barry Willman, an analyst at Sanford C. Bernstein & Co. Gumucio calls Rollwagen "one of the smartest guys I know." But he warns that there is only a "possibility" that Cray can thrive without more rigor.

Rollwagen says he's not worried: Cray inherited efficiency from its flinty, Midwestern founder. What does worry him is crippling the Cray style and hampering its resident geniuses. "We've got to stay at the leading edge without blowing ourselves up in anarchy," he says. All managers with an aversion to bureaucracy should watch closely to see if he succeeds.

By Russell Mitchell
Minneapolis



The Problem With Buying Software From A Hardware Company

Once a company gets locked into hardware and software from one computer vendor, it operates at the mercy of that vendor.

Many companies buy and build software that runs on only one kind of computer. Locking themselves into one vendor's hardware. These companies can then find themselves trapped into buying a ten million dollar computer when a one million dollar computer from another vendor would actually do a better job.

These expensive hardware traps can easily be avoided by using the right software.

Oracle software runs on virtually every computer – mainframes, minicomputers, workstations and PCs. From virtually every vendor.

Oracle software lets companies develop applications that run on all their computers. And share data among them as well.

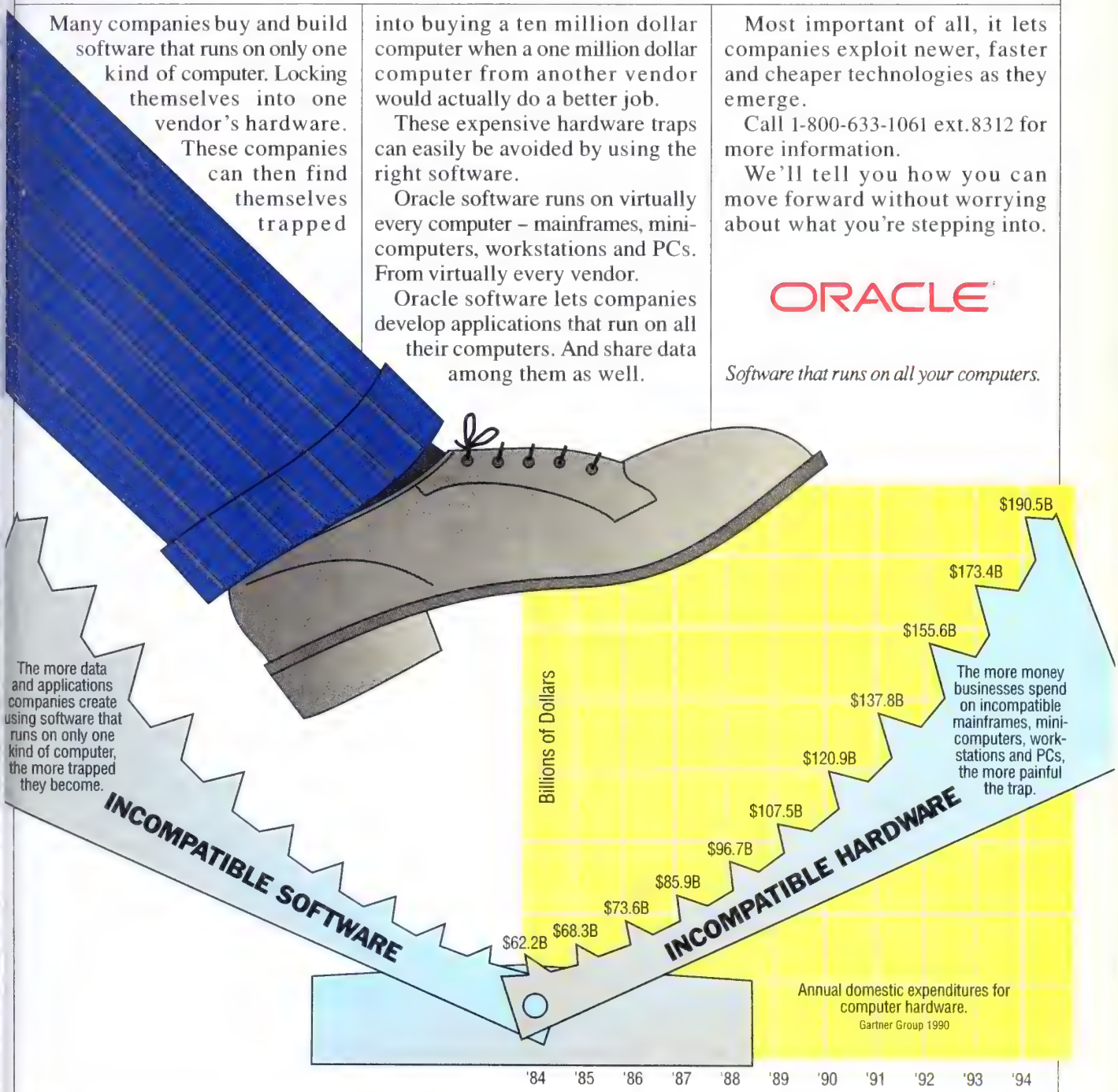
Most important of all, it lets companies exploit newer, faster and cheaper technologies as they emerge.

Call 1-800-633-1061 ext.8312 for more information.

We'll tell you how you can move forward without worrying about what you're stepping into.

ORACLE

Software that runs on all your computers.



©1990 Oracle Corporation. ORACLE is a registered trademark of Oracle Corporation. All trade names referenced are the service mark, trademark, or registered trademark of the respective manufacturer. Call 1-800-ORACLE1 for hardware and software requirements.

PEOPLE

TOMMY RETTIG HAS A NEW LEASH ON LIFE

Lassie's onetime co-star is now a software guru

It's one episode that *Lassie* fans shouldn't miss. This fall, 48-year-old Tommy Rettig will return to television. Once again, he will star as Jeff Miller, the character he created for the series debut 36 years ago. The grown-up Jeff Miller is a computer science professor who will be reunited with America's favorite collie on Saturday morning's *The New Lassie*. In one scene, he'll try to teach the ageless canine how to work a personal computer.

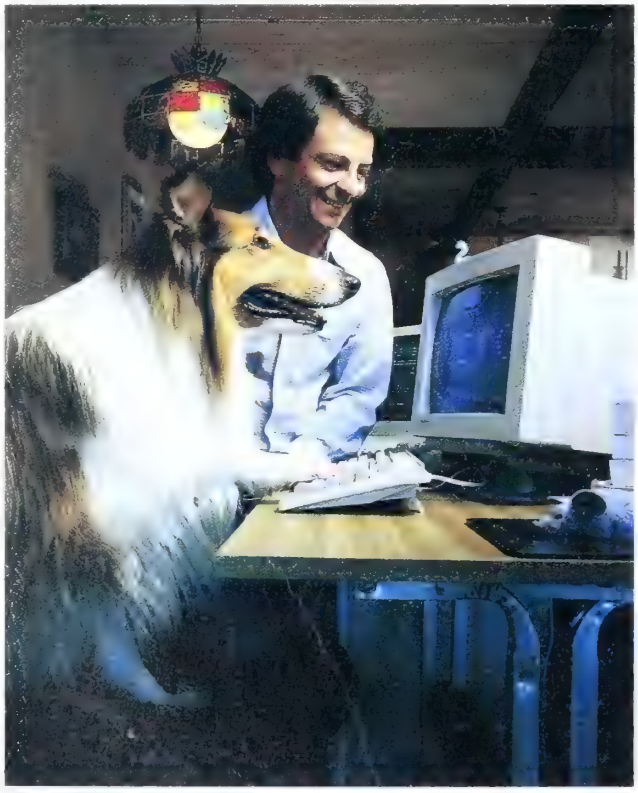
The cameo appearance as a computer jock is a fitting role for the former child star. In recent years, Rettig, who dropped off TV screens in the late 1950s, has been devoting his energies to computer screens. He has become an authority on PC data bases, an author, and an all-around gadfly in the software business. He no longer even has a dog.

EARLY RETIREMENT. His Tom Rettig Associates consultancy has the same tony Beverly Hills address that handled his fan letters years ago. But that's just a mail drop. Rettig lives and works in a Marina del Rey apartment—with four computers perched on a living room desk, monitors tucked under end tables, and printers arrayed on chairs. The only reminder of his past is an 8-by-10 glossy of young Tommy clinging to Marilyn Monroe's skirt, a publicity still from Otto Preminger's 1954 film, *River of No Return*.

Rettig finally seems to have found his niche after spending 25 years "searching for my second gift," as he puts it. His career as a child actor began at age 5, when he joined the road show of *Annie Get Your Gun*. Within a few years, he was earning about $2,500 a week in movies and TV. But Rettig retired at 15 to finish high school. "I wanted to be normal," he says. "You know, chase girls, race cars, and party."

An early marriage, at 18, and two sons changed his plans. Unable to break back into show business, he dropped out altogether in 1971. He became an organic farmer in central California. That lasted 18 months, until he was arrested: One of his crops was marijuana.

Rettig then worked as a photographer, and after that, as an insurance broker. Nothing clicked—until he started fiddling with computers. While trying to launch a company to conduct est-like "personal growth" seminars, he taught himself dBASE, a popular PC data-base management program from Ashton-Tate Corp. Rettig's company failed, but by that time he had been bitten by the software bug.



FETCH: RETTIG AND THE NEW LASSIE BOOT UP

"It was time to get a job again, so I looked in the paper for a programmer's job," he says. He applied to Ashton-Tate and got one of the highest scores ever on its dBASE proficiency test. In 1983, he joined the Torrance (Calif.) company, where he co-authored a best-selling programmers' guidebook.

After leaving Ashton-Tate two years later, he introduced Tom Rettig's l brary, a set of shortcuts for dBASE u ers. Ashton-Tate and two competitor Nantucket Corp. and Fox Software In have since added some of those featur to their products. Says Janet R. Walk a Fox Software product manager: "To my fills the gaps when products li ours miss the boat with some users."

In the past few years, Rettig has be at work on a series of technical manua for Bantam Books and some contra programming. For one client, the *L Angeles Times*, he wrote a program th helps conserve newsprint. For another small Marina del Rey company call Vital-Link Inc., he wrote software to b ter automate the monitoring of medic alarms that are worn by the elder "When Tom's done, our work on t computer will drop from hours a week to 15," says Vit Link's founder, whose nam curiously, is Jeff Miller.

'RABBLE-ROUSER.' Over t years, Rettig has risen hi enough in the software bu ness that his opinions oft help shape it. He became outspoken critic of Edward Esber Jr., the chief executive Ashton-Tate, blaming him f the company's delays in comi out with improved versions its products. In a column Rett wrote for a trade magazine May, 1989, he called for Esbe ouster. Esber was forced step down this April, and As ton-Tate finally released t fixed version of dBASE la month. Once, Rettig showed at a conference with a satiri pamphlet called *The Nantuck Papers*—a compilation of t soap-opera-like lawsuits b tween Nantucket's founder a its former CEO.

Rettig needles the big so ware makers to win over l audience. "Tommy's a radi rabble-rouser," says Adam Green, another longtime data-base co sultant. "He picks causes to attach hi self to as a way to keep himself visil in the consulting business."

For Rettig, though, the software bu ness may just be the means to a lifelo goal. "I'd like to get to the point whe [book and software royalties] could su port me for two years, so I could writ novel," he says. He's not there yet, b he's already started writing differe kinds of programs: Besides playing t computer professor on *The New Lass* Rettig wrote the script.

By Larry Armstrong in Marina del R Calif.

Developments to Watch

)ITED BY NAOMI FREUNDLICH

.N OUCHLESS BLOOD TEST OR THE HOME

Until now, the home diagnostic market has been limited to tests—such as ones for pregnancy—that don't require blood samples. That's because most people don't like to prick their finger. To check on cholesterol or blood-glucose levels, they prefer to see a doctor.

Now, Safety Diagnostics Inc., an Evanston (Ill.) startup, has developed a vice that collects blood painlessly and provides results in ıder three minutes. Called PINSET—for painless invisible nee- e serum extract tester—the device uses a tiny needle that is r less painful than a finger prick. About the size of two ıcked Life Savers candies, PINSET is disposable and draws ly a minute quantity of blood. The necessary chemicals for easuring blood glucose or cholesterol are enclosed in the vice. With other chemistry, the kit could be used to test for DS, venereal disease, and more. So far, Safety Diagnostics s raised close to $1 million. And the company says several ugmakers are interested in its technology.

/HAT'S FASTER THAN SPEEDING RISC CHIP?

f you thought reduced-instruction-set computing, or RISC, was the latest in microprocessor technology, think again. raplex Inc., a semiconductor startup based in Champaign, ., has developed a radically different chip that it has dubbed SC, for minimum-instruction-set computing. Teraplex' first SC chip, due out in early 1991, will run 70 million instructions r second (MIPS), twice as fast as most RISC chips. Eventually, gher-end MISC chips will be 10 to 100 times faster than lay's processors, says President Philip McKinney. Even ɔre startling, any software written for current machines will ɔo run on MISC computers.

How does Teraplex achieve these lightning speeds? The mpany has stripped away several steps used to encode, then code, instructions to a processor. With its parallel processing sign, MISC uses just nine simple instructions, vs. a score for SC and hundreds for the processors used in most computers. though Teraplex' architecture requires more memory chips, proves far speedier because each processor is doing less ɔrk. Since the MISC architecture is scalable, it could be used run machines from PCs to supercomputers.

A prototype could be finished by yearend, and Teraplex has nonexclusive licensing agreement with Atmel, a San Jose alif.) chipmaker, to help with manufacturing and marketing.

HIS COULD BE SIGHT FOR WORN-OUT EYES

One of the telltale signs of aging is in the eyes. By the time they reach middle age, most people lose up to half their photoreceptors, the cells that line the retina and help nvert light into nerve impulses. The decline causes about 15% of adults eventually to lose some or all of their vision.

However, researchers at Washington University in St. Louis are pioneering a solution. Stephen E. Hughes and Martin Silverman, research scientists at the university's Central Institute for the Deaf, have transplanted photoreceptors in rats and have shown that they can make blind rats see again. Using donated human retinas, the scientists shave consecutive horizontal slices until they get to the layer that contains the photoreceptors, which they transplant into the rats' retinas. Tests have shown that the retina sends a message to the brain when the rats' eyes are exposed to light. The animals' pupils also contract and open in response to light. The next step, Hughes says, will be to see whether rats trained to respond to visual signals perform in the same manner once they've been blinded, then given a transplant. If such studies go well, the operation could be tried on humans within three years.

NOW, REASONS TO BELIEVE THE WEATHER REPORT

It's an all-too-common story. The weather forecaster predicts a day of sunshine, but everyone ends up drenched. The problem is that the atmosphere is a capricious beast. And prediction is made more difficult because atmospheric temperatures and wind speeds are gathered by weather balloons only once every 12 hours. Tornadoes, snowstorms, or other nefarious weather can flare up between measurements.

Now, weather forecasting is getting a boost. The National Oceanic & Atmospheric Administration has begun installing a network of radar detectors that continuously sense wind speed at various heights. And scientists at the NOAA have just developed an additional device to sample temperatures up to three miles high. Called a temperature profiler, it sends sound waves into the sky, then detects the speed of the waves with Doppler radar, explains engineer Richard G. Strauch. Since the waves' speed varies with temperature, the radar is able to provide distant readings within half a degree. Once the devices are used widely, say NOAA meteorologists, we could see the end of daily weather balloons—and of surprise thunderstorms.

COCKROACHES: THEY'RE ENOUGH TO MAKE YOU SICK

A cockroach scurrying across the kitchen floor can give the bravest homeowner the willies. But now, there's a new reason to detest this symbol of the unkempt house. Scientists have discovered that an estimated 15 million people in the U. S. are allergic to the insects. Reactions range from runny noses and skin irritations to, in a few cases, death.

Reseachers at the Agriculture Dept.'s Agricultural Research Service are trying to find treatments for such allergies. So far, ARS researchers have found that increasing airflow and reducing humidity in attics and wall voids helps reduce the number of cockroaches—and hence, the allergens in the home. Doctors also have identified several of the 50 proteins found in cockroaches and will soon test volunteers to determine what causes the allergic reactions. Once the culprits are found, scientists hope to develop immunizations for the allergens.

We're taking one of our best ideas and burying it. Since 1979, BP has spent more than $70 million to replace old underground storage tanks at our service stations across the country. The new fiberglass tanks resist corrosion and minimize the chance of leaks into the ground, and now government regulations say all service station owners must upgrade their tanks by 1998. But because we started on our own, we're already 95% done. That's a bit of news nobody wants to bury.

BP

200 Public Sq., Cleveland, OH 44114

IT'S A DIRTY JOB, BUT SOMETHING'S GOTTA DO IT

Field robots are moving beyond radioactive cleanups to bomb disposal, firefighting, and more

Members of the Rosa family are some of Westinghouse Electric Corp.'s most valued workers. They routinely toil where most people wouldn't dare tread: inside the radioactive guts of nuclear power plants. The Rosas, you see, epitomize a special breed of robot—steel-collar workers that are not tied to the factory floor. Instead, these so-called field, or service, robots move about to do jobs in nonmanufacturing environments that are hazardous, dreary, or too restrictive for humans.

Equipped with wheels, tracks, legs, fins, or even wings, field robots have started to perform such tasks as cleaning up hazardous-waste sites, putting out fires, disposing of terrorist bombs, and spotting drug smugglers. Just a handful of such robots were commercially employed 15 years ago, most of them for underwater maintenance of offshore oil rigs. Today, there are hundreds. Tomorrow, they could number in the thousands—including some in orbit.

Space scientists eagerly await the day when "astrobots" can be stationed in orbit, ready to repair faulty satellites. Martin Marietta Corp. is designing a prototype for assembling and servicing the planned U. S. space station. In 1992, NASA will send the robot on a shuttle flight for an in-orbit test. "It's the golden age of field robotics," says William L. "Red" Whittaker, director of the Robotics Institute's Field Robotics Center at Carnegie Mellon University (CMU). "For the first time, the technology is capable of competent performance."

On any given day, at each of the power plants serviced by Westinghouse, a 77-inch-long Rosa robot snakes through a small door into the maze of steam-carrying tubes adjacent to the nuclear reactor. In one hour it can inspect the pipes and make more, and better, welding repairs than squads of human "jumpers"—people who have to rush into the area and then rush out after only 45 seconds. Since Westinghouse put the first Rosa model to work in the early 1980s, the robots have slashed power plant downtime, saving Westinghouse's utility-company customers at least $500,000 each time the robots finish a chore one day sooner than humans can.

Over the past decade, such major suppliers as Babcock & Wilcox, Combustion Engineering, and Westinghouse ha deployed scores of field robots in nuc ar power plants. But these success went largely unnoticed, overshadow by the feats of factory robots. One re son is that field robots lacked the gla our of their manufacturing count parts, since service robots must remotely controlled by human operato They were not—and they generally s are not—"smart" enough to operate on their own.

Now, the poor-cousin status of these robots is changing, although it may still be a decade or more before enough comput-

CARNEGIE MELLON'S WHITTAKER: "IT'S THE GOLDEN AGE OF FIELD ROBOTICS"

THE PROLIFERATING USES FOR FIELD ROBOTS

Robots that do these jobs...	...are manufactured by:
Inspection, repair, and cleanup of commercial nuclear power plants	Westinghouse, Babcock & Wilcox, Benthos, Odetics*, Carnegie Mellon University
Assessment, analysis, sampling, excavation, and cleanup of hazardous-materials sites	RedZone, Martin Marietta*, Caterpillar*, Westinghouse, Deere*
Bomb detection and disposal, chemical accident cleanups	OAO, Foster-Miller, Pedsco
Sea research for universities, rig inspection for oil industry	International Submarine, Hydrobotics, Benthos
Space station construction and maintenance, exploration of other planets	Carnegie Mellon University*, Martin Marietta*, RedZone*, Boeing*
Military reconnaissance, materials handling, runway repairs	OAO*, General Dynamics*, Martin Marietta*

*Robot in research or prototype phase

DATA: BW, COMPANY REPORTS

HIGH STEPPER: A NIMBLE ODEX

power can be crammed into a field bot to enable it to maneuver and make cisions entirely autonomously. In the rly 1980s, a field robot had to have a ck copper cable tethering it to a mini- nputer or mainframe and its human ntroller. Today, many robot "brains" through 4 million instructions a sec- d, a fourfold increase. This trims the ount of information that must flow tween the robot and its operator, al- ving advanced field robots to roam les from the nearest human, "teth- ed" only by radio signals.

All that computer power, and more, is eded because field robots must con- nd with what experts call a highly un- uctured environment. That means it 't possible to program the robot's nputer for all possible contingencies. ctory robots, on the other hand, enjoy nicely structured environment. They typically bolted to the floor and need y repeat the same set of motions ain and again. But if a field robot is to oid falling off a ramp, say, it needs ificial senses, especially vision. And en today's best robotic-vision systems still rather primitive.

CLEAR TRASHMEN. Improvements are ning quickly, though. A decade ago, "see" an obstacle and identify it re- ired minutes of processing time. To- y, it takes mere seconds—if the robot bouncing laser beams off its path and ving at no more than 7 mph. That's out the best performance achieved to e by researchers working on the De- nse Advanced Research Projects ency's autonomous land vehicle pro- m. This seven-year-old DARPA project as been central to the development of e technologies for field robots," says vid H. Pahnos, assistant director for ld robotics at CMU.

While much remains to be done before vice robots realize their full potential, ld robotics nonetheless stands at the eshold of enormous growth. Starting ound the turn of the century, the U. S. clear industry will need a small army robots to help decommission and thball some 100 aging power plants. en bigger demand will come from the ergy Dept. Over the next 30 years, it l spend perhaps $100 billion to decon- ninate hundreds of millions of cubic t of nuclear-weapons waste buried at sites. This waste is very hot in both ses of the term: Its temperature can ge up to 300C, and it can expose hu- ns to as much as 1,000 rems of radia- n—a level that would be lethal within minutes. "We've got to use robotics," says Leo P. Duffy, Energy's direc- tor of environmental restoration and waste management.

Developing and building the robots necessary for this cleanup, Duf-

WHY THEY CALL JAPAN 'ROBOT PARADISE'

Americans excel in robot science, but Japan's engineers lead in nuts and bolts. In corporate and government labs, they are working on better materials for robot limbs, lighter types of artificial muscle, sharper machine vision, and faster circuitry. Now, they're starting to turn these into highly sophisticated field robots.

In the race against the U. S. and Europe, Japan has familiar advantages. There's an engineering work force that has installed the world's largest army of manufacturing robots—some 220,000 by last year, vs. 37,000 in the U. S. The edge in numbers results in economies of scale, funding for research and development, and a broad base of parts suppliers to companies such as market leader Matsushita Electric Industrial Co., whose robot revenues hit $528 million in 1989. "America may be ahead in certain key technologies," says Tatsuya Nakamura, a chief engineer at the Ministry of International Trade & Industry's Mechanical Engineering Laboratory. "But Japan has the infrastructure." In fact, the Japanese speak of their nation as *robotto tengoku*—robot paradise.

HIGH STEEL. Labor shortages helped spur Japan's robo-mania. In the 1980s, Tokyo refused to let immigrants in to take up the slack, and Japan's giant builders turned to robot R&D. "The labor shortage propelled these firms to the forefront of field robotics," says Shigeaki Yanai, research manager at the Japan Industrial Robot Assn.

Now, Japanese construction sites are a showcase of automation that U. S. contractors only dream of. Shimizu Corp. hit the market early with robots that assemble steel girders, smooth concrete slabs, and spray-paint exterior walls. Rival Kajima Corp. built an excavation dynamo that drills, blasts, and applies concrete liner to tunnels.

Combining strengths in sensors, audio-video components, and mechanical engineering, Japan also spawned a menagerie of mobile inspection machines. Kajima's tile-testing robot, for example, inches crablike along a wall, tapping each tile and analyzing the sound to determine its adhesion. And the Transport Ministry's Port & Harbor Research Institute is spending $1 million a year to develop an Aqua Robot to inspect sea-floor building sites.

The centerpiece of Japan's thrust in field robots is an eight-year, $100 million MITI project that is nearing its end. MITI's mission was to develop robot prototypes for three jobs: cleaning up nuclear power plants, fighting fires, and assisting in undersea construction.

Development tasks were parceled out to 20 companies. Computer powerhouses Toshiba, Fujitsu, and NEC concentrated on vision systems. Fuji Electric Co. developed manipulators possessing both strength and a delicate sense of touch. Ishikawajima-Harima Heavy Industries Co. crafted a metal skin for the firefighting robot. Its artificial "sweat glands" let it withstand temperatures up to 1,200C. Fanuc Ltd., meanwhile, built especially powerful actuators for arms and legs.

AQUA ROBOT IS DESIGNED TO INSPECT UNDERSEA BUILDING SITES

Not all the companies will finish in time for an exhibit set for December. Hitachi Ltd. is behind with its four-legged locomotion system. Nor will Komatsu Ltd. be ready with its unique hydraulic musculature that runs on seawater instead of hydraulic oil.

But nobody equates these glitches with failure. "We've cleared most of the technological hurdles," says Takayuki Tsunemi, head of the 20-company consortium. "The task for each company now is to make its robot smaller, lighter, and cheaper." Japan has the components, the engineers, and enough cash. It doesn't take artificial intelligence to judge that a winning formula.

By Neil Gross in Tokyo

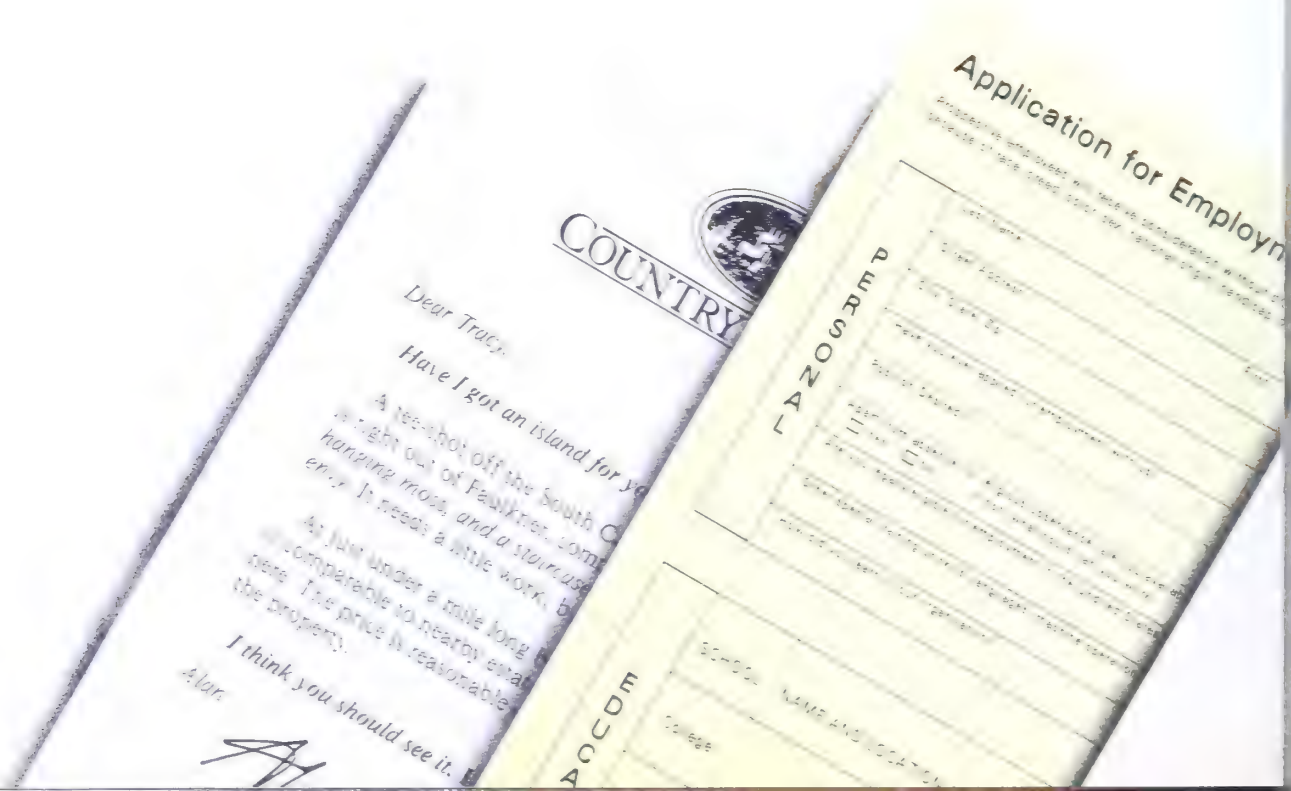
Laser printing just go

OKIDATA introduces OKILASERS. A full line of business smart laser printers that's compatible with both HP® and your budget. Personal to PostScript®, OKILASERS deliver the same tank tough™ performance and reliability that OKIDATA has built into more than 3,000,000 printers. OKILASERS by OKIDATA . . . a printer for every business.

Call 1-800-OKIDATA for the tank tough dealer nearest you.

OKIDATA®
an OKI AMERICA company

We put business on paper

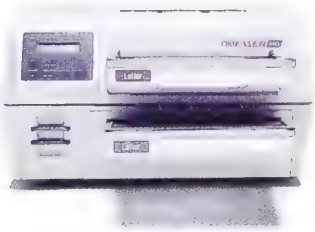


our times better.

PC MAGAZINE
EDITORS' CHOICE
June 12, 1990
OKILASER 400

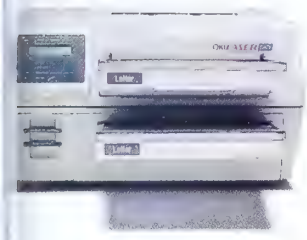
OKILASER™ 400

Small. Personal. Affordable. 4 pages per minute. 17 fonts. Holds 200 sheets. A genuine laser. A genuine bargain.



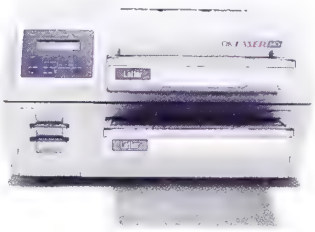
OKILASER™ 800

For heavy duty use. 8 ppm. 26 fonts. Expandable to PostScript® and dual bins. A real workhorse.



OKILASER™ 820

Prints up the side, across the other, drop shadows, stretch letters, outline, fill, and sets fonts up to 2″ instantly, 8 ppm.



OKILASER™ 840

True Adobe PostScript.® Perfect for desktop publishing on DOS or Macintosh® systems. 8 ppm.

EYE OPENING

R 820 makes presentations pop. And correspondences quake. m from all angles. With messages of growing magnitude. Laser printing bliss. And then some.

Features

haracter outline

pattern filler

er co

AFRICAN

It's a jungle out there. Desktop publishing has evolved and proliferated so much that the peripherals which make it possible have to be tough to survive in this market. And the tougher the market, the more demanding the tests, the more savvy users turn to the OKILASER™ 840 printer.

The OKILASER 840 from OKIDATA provides high performance Adobe PostScript® with 35 scalable fonts resident. Capabilities are unlimited with the power to perform

BUFFALO

Hot Spot For Business

Buffalo is warming up to a new business boom!

Make Buffalo your business. Speak to readers all over the globe who will respond to Buffalo's surprising sizzle. Make plans to appear in the pages of the Special Advertising Section *Buffalo: The Hot Spot for Business.*

For more information, please call:
D. David Johnson, II, Account Manager
at 203-968-7141
or
Barbara J. Daly, Marketing Manager
at 212-512-6664

BusinessWeek
There is no second place.

figures, will cost $1.5 billion to $2.5 lion over the next 10 years—by far largest program ever in robotics. d such huge outlays will surely accel- ite the use of service robots in other s. Already, in fact, many essential hnologies have progressed from the oratory to practical use. Yesterday's ide mechanical arms and grippers ve yielded to dexterous new designs t can insert a key in a keyhole. With ir more powerful computers, plus ex- t-system programs that mimic human ision-making, field robots are gradu- asserting their independence and egating humans to a supervisory role. Pennsylvania's Three Mile Island nu- ar accident in 1979 proved the viabili- of service robotics. Bechtel Corp. uggled to find a cost-efficient way to ry out its $1 billion, nine-year cleanup ntract. Decontaminating TMI's No. 2 ctor would have involved 21,600 hu- n "jumps." So Bechtel paid $800,000 CMU's Robotics Institute for three ro- s, including a six-wheeled model that ld carry 1,000 pounds of equipment clean or break down contaminated

To excavate around toxic aste containers, robots will have to have a surgeon's esse and a dancer's balance

lls. It also removed 100,000 gallons of ioactive sludge. "It did an outstand- job," says Michael D. Pavelek, who ded the decontamination work.

o hasten development of its robots, ergy is adopting much of the technol- pioneered by the nuclear industry. eady, the agency has invested $100 lion in 50 nonmobile and five mobile ots now deployed at various cleanup s. In hopes of winning some of Ener- s billion-dollar kitty, Deere & Co. and erpillar Inc. are working on robot ex- ators, IBM and CMU are tackling vi- n software, and Martin Marietta is earching multipurpose vehicles.

n other markets, Foster-Miller Inc. sold 60 field robots, and coming up 1991 is a "pipe mouse." This rodent ot will change its size, from 3 inches liameter up to 6 inches, depending on size of the pipe, and look for early ns of corrosion. The volatile situation Northern Ireland prompted the Brit- army to buy several bomb-disposal ots, called Wheelbarrows, from Brit- 's Morfax Ltd. Worldwide, Morfax sold 700 of its antiterrorist robots. or cleanup tasks, Energy will need robots with finer precision and dexterity than are now commercially available. They will have to dig with the finesse of a surgeon and tiptoe like a ballet dancer, because damaging a casket of waste could release radioactive gases or cause an explosion. Odetics Inc. may have an answer in the Odex 3, a sure-footed robot scheduled for testing this summer. It was designed to work in cluttered areas of nuclear plants, but Energy's Duffy thinks it may also serve his needs.

MARS MAPPER. Perhaps the biggest advances will come with improved vision systems. Carnegie Mellon is working with Westinghouse and Pittsburgh startup RedZone Robotics Inc. to develop advanced imaging technology for the Rosa 3. This will let the robot determine its location more accurately by checking its surroundings with its camera. By 1993, Westinghouse plans to adapt vision technology developed for NASA's Mars Rover program. CMU is building a six-legged prototype for exploring the red planet that will navigate by radar-like means: It will generate precise 3-D images by bouncing laser beams off objects.

If robots continue to become more autonomous and don't fumble the job of cleaning up Energy's mess, proponents foresee a bright future. Field robots could one day farm and cut timber. They might even migrate further afield, producing pharmaceuticals in space. And NASA is working on robots to mine the moon for fuel for future spaceships. "We're talking the stuff of science fiction," says CMU's Whittaker.

Some U. S. researchers worry that Japan may dominate field robots just as it does factory robots—despite America's continuing lead in robotics science. The Japanese have installed more "dumb" robots than the rest of the world combined. And now, Japan is wrapping up a $100 million project aimed at developing smart mobile robots (page 93). "They spend the money on development, and then they get the product to market," says Clive A. Thompson, chief executive of Hydrobotics Engineering Canada Inc.

Whether made in the U. S. or in Japan, field robots seem here to stay. And their numbers could end up dwarfing the robot population in factories. Joseph F. Engelberger, inventor of the factory robot and founder of Transitions Research Corp., a field-robot startup in Danbury, Conn., believes that service robots will soon "clean bathrooms, scrub floors, cook meals, cut the grass, and shovel snow." That could be worth the wait.

By Gregory L. Miles in Pittsburgh, with Neil Gross in Tokyo and Mark Maremont in London

FOR AD RATES
AND INFORMATION
PHONE:
(312) 337-3090
OR WRITE:

BUSINESS WEEK MARKET PLACE

BUSINESS WEEK
MARKET-PLACE
100 EAST OHIO STREET
SUITE 632
CHICAGO, IL 60611

Health/Fitness

THE ULTIMATE CHAIR for a stress-free workday!

Our leather office chair reclines!

BackSaver FREE 14pg. catalog 1-800-251-2225 or write
53 Jeffrey Ave., Dept. BW-26, Holliston, MA 01746
In MA 508-429-5940

Education/Instruction

Now Read This!

Studies by **Harvard University** show that reading and English skills improve after just one exposure to closed-captioning. The **L.A. Times** reports that "closed-captioning is becoming television's biggest learning aid". And the **U.S Department of Education** will actually pay you $20 to turn TV time into learning time for your family by bringing closed-captioning to life in your home. Let the *"Little Mermaid"* or *"Bill Cosby"* be just two of the reading teachers that come to your house everyday. A closed-caption decoder teaches by displaying dialog, similar to sub-titles, but only larger. Over 360 hours per week of TV programming as well as almost 2,000 video titles are closed-captioned to give your child a head start. Take advantage of it!

$169.00
after rebate

For more information call
ASSOCIATED VENTURES NETWORK
toll free **1-800-441-4286**

Business Services

FOR THOSE SEEKING GREATER ACCESS TO JAPANESE MARKET

Learn how an understanding of cultu dynamics can help eliminate trade ba riers and make your products more c sirable to the Japanese people

- Multilingual
- 2 years research and study at the N tional Museum of Ethnology, Osaka Member Nihon Tenji Gakkai (Orga ization for the Study of Japanese D sign)

Address inquiries to:
Sam Collier
165A Mt Vernon St
Boston, MA 02108
(617) 742-3872

Executive Maternity Fashion

MothersWork Maternity
Dresses For Success

Executive suits, elegant dresses, contemporary sportswear and evening dresses too! For a great image during and after pregnancy. **Catalog** with swatches and fit guide $3, refundable with order. **Visit our stores in:** Atlanta, Arlington Hts. IL, Baltimore, Boston, Charlotte, NC, Chicago, Cleveland, Dallas, Denver, Fair Oaks Mall, VA, Ft. Lauderdale, Harrisburg, PA, Hartford, CT, Houston, King of Prussia, PA, Los Angeles, Memphis, TN, Minneapolis, New Orleans, New York, Palo Alto, CA, Philadelphia, Pittsburgh, Princeton, N.J., Rochester, MN, St. Louis, San Francisco, Orange County, CA, Stamford, CT, Washington, D.C. Phone 215-625-0151, 300 Noble Street, 5th Floor, Dept. WW22, Philadelphia, PA 19123

Hobbies/Collectibles

WWII FIGHTER COLLECTION

Business Services

CONSULTEL
PROFESSIONAL TELE-MARKETING SERVICES

We know the secret to your success!
Professional, cost effective telemarketing

- *SCREENED APPOINTMENTS*
- *QUALIFIED PROSPECTS*
- *CUSTOMER SERVICE*
- *MARKET RESEARCH*
- *DIRECT SALES*

We offer you...

- *PROFESSIONAL OUTBOUND TELEMARKETING*
- *CLERICAL SUPPORT FOR YOUR PROGRAM*
- *DATABASE MANAGEMENT & SOFTWARE*
- *A ONE TO FIVE SUPERVISION RATIO*
- *EXCELLENT REFERENCES*
- *PERSONALIZED SERVICE*

Call or write today for a free brochure!

2320 N. WOODLAWN AVE METAIRIE LA 70001
1-(800)-256-2418 • FAX: 1-(504)-887-9398

Business Services

INCORPORATE IN DELAWARE

Specialists in setting up Delaware Corporations. General, Aircraft, Boat & Shelf Corporations.

Delaware Registry Ltd.
Call/Write for **FREE KIT**
P.O. Box 484-BW
Wilmington, DE 19899
800-321-CORP • 302-652-65

Business Opportunities

DISTRIBUTORS/DEALERS
Hi-Tech Hovercraft & New Desig Watercraft developed in Japan no available in USA
AMERICAN HOVERCRAFT SPORTS, CA
(714) 970-8870 OR (714) 970-538 FAX

Financial Services

BUY STOCKS WITHOUT A BROKER

Special Report... Do-it-yourself investing at its best!
Better than low commission...no commission investing!
Get this Special Report from
DOW THEORY FORECASTS

plus **Special Report: 94 Electric Utilities**...clear ratings assigned, five special buys evaluated
plus Charles Schwab's great book, **"How To Be Your Own Stockbroker"** (reg. $5.95 value)
plus **Full Consultation Privileges**

all with your 6 month (26 weekly issues) **introductory subscription** for only $57. New subscribers only. VISA or MC. Order today by phone or fax directly from:

Dow Theory Forecasts, Inc., Dept. BMP0790
7412 Calumet Ave., Hammond, IN 46324 (219) 931-6480
FAX (219) 931-6487

Financial Services

INVESTORS
Capital required for purchasing insurance companies below market value. Projected returns at 50 to 75% per year or more
Equity interests available
Send for Prospectus
American Health Inc
205 West Main
Hill City, KS 67642
913-674-2139

Language Translations

FOREIGN LANGUAGES TRANSLATED IN ENGLISH
Scientific-Commercial-Military
6¢/word. 72 Languages. Since 196
David Grant Stewart & Company, 13
Ava Rd., Severn, Md. 21144 (301) 55
2746

Autechna Interest Holding Western and Eastern Germany

National and international automobile manufacturers invest billions in East Germany.

We are a trading organisation specializing in technical spare parts for all automobile models.

Expanding into FRG and GDR we offer shares - DM 100.000, - min - to lenders.

Now is the time to invest in this profitable market.

You can receive an exposé shortly.

Please write to the

Autechna Autoteile KG
Siemensstraße 2
D-3550 Marburg 1
Western Germany

IT PAYS TO ADVERTISE IN THE BUSINESS WEEK MARKET-PLACE

The Business Week Market-Place Section is a special advertising feature appearing in the first issue of each month. The Market-Place provides an ideal 'Showcase' for advertisers who have products or services that appeal to Business Week's more than 6.2 million responsive readers.

For rates and information mail the coupon below, or call (312) 337-3090 or FAX (312) 337-5633.

MAIL COUPON TODAY

BUSINESS WEEK MARKET-PLACE
100 East Ohio St., Suite 632
Chicago, IL 60611

Name _____
Company _____
Address _____
City _____ State _____ Zip _____
Phone _____

FOR AD RATES AND INFORMATION PHONE: (312) 337-3090 OR WRITE:

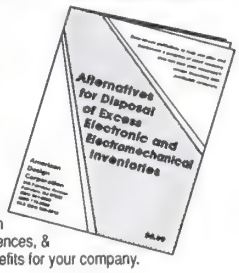
BUSINESS WEEK MARKETPLACE

BUSINESS WEEK MARKET-PLACE
100 EAST OHIO STREET
SUITE 632
CHICAGO, IL 60611

Inventories Purchased

re excess inventories tying up *your* cash?

nd for a **FREE** copy of this guidebook tailing your company's cash recovery tions from excess or obsolete electronic lectro-mechanical inventories.



32-page step-by-step guidebook outlines a wide range sposal options, including private sale, auction, consignment ore. It explains the advantages & disadvantages of each option rms of cash return, timing, overhead expenses & tax consequences, & s you decide which method is best suited to maximize the benefits for your company.

order, mail to:

.... AMERICAN DESIGN CORP. .....

P.O. Box 220, Dept. BW, 815 Fairview Ave., Fairview, NJ 07022
or *CALL TOLL FREE* 1 (800) 776-3800
Or, in New Jersey (201) 941-5000

Wine Cellars

Visa/MC/AmEx/Discover

WINECELLARS-USA

18 Models – We won't be undersold!
Immediate shipment on most models.

Handmade Wood Cellars		Your Cost
296 Bottle Credenza	Ret: $ 2795	$ 1795
440 Bottle Capacity	2495	1695
700 Bottle Capacity	3495	1995
Designer Models – *Not Handmade*		
40 Bottle Glass Door	$ 599	$ 499
60 Bottle Glass Door	749	659
FurVault holds about 8 Furs $3495		$ 1895

Only $2.85 per bottle *Model 700*

Custom Cellars & Racking Systems – Call For Catalog
134 W 131ST St. Los Angeles • 800/777/VINO (777-8466) or in CA 213/719-9500

Business Services

LASER FACTORY

ner Cartridge Reconditioning
tionwide Free Pick-Up & Delivery
w Prices On NEW Cartridges Too!
Purchase Used Toner Cartridges
10 Off 1st Order (With Ad)
7 Chess Dr, Foster City CA 94404
)/359-5777 or 415/571-9442

CORPORATING? FREE KIT

It's easy in Delaware or any state with our fast, reliable, inexpensive service. For free information call toll free (800)441-4303, or write:

CA.i CORPORATE AGENTS, INC.
Department BW, Box 1281
Wilmington, DE 19899

elocating? Are you or your staff locating to the metropolitan Toron- area? Let us assist you in obtain- g a one or two year lease, for es- tes, executive homes, town homes condominiums. For information rite: Corporate Property Manage- ent, 6111 Hardesty Presc., Missis- uga, Ontario, Canada L5V 1B3 or X 416-542-7963.

INCORPORATE IN DELAWARE
$250 for Complete Incorporation
WHITTINGTON & AULGUR, Law Offices. For free information Write P.O. Box 5550, Wilm., DE 19808 or Call 1-800-441-9459

PEN YOUR OWN RETAIL STORE
easy 7 step guide to opening your n store and a simple 8 step guide to ccessfully managing it including ation, financing, budgeting, adver- ng, merchandising and salesman- p. Send $2 00 for postage and han- ng to JRS Marketing, P.O. Box 703, mden, AR 71701

Business Software

Use your IBM PC wordprocessor, database to write Greek, Russian, European, Hebrew & Scientific with **TURBOFONTS™**.
Image Processing Software, Inc.
∑ Ж Д P.O. Box 5016
ΓЄλ Madison, WI 53705
©®ΨΘ¥ (608) 233-5033

PERSONAL PORTFOLIO MANAGEMENT SYSTEM $219.50. For all types of securities:stocks, bonds, mutual funds, CDs. Provides reports for portfolio appraisal, unrealized/realized gain; monthly income estimate, broker commissions; graphic presentations and much more. IBM/compatible. To order call 800-762-5468, in CA 800-442-9007. Or write to Wallace Estate Pricing Service, Inc. 6433 Topanga Canyon Blvd., Suite 125, Canoga Park, CA 91303.

Computers/Office Equipment

MARYMAC INDUSTRIES INC

Our 14th year of DISCOUNTS
Tandy® Computers
Radio Shack® Products
Toll Free 800-231-3680
22511 Katy Fwy. Katy (Houston) TX 77450
1-713-392-0747 Fax (713) 574-4567

Voicemail

Business Software

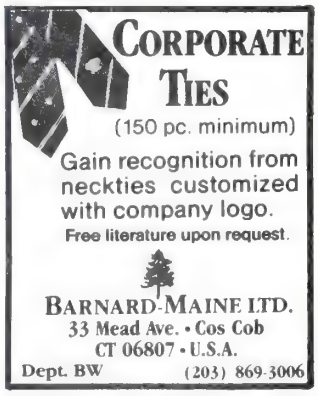
Attention:
Chief Financial Officers
Acc's Payable Managers
and/or Traffic Managers
"Freight Wizard"

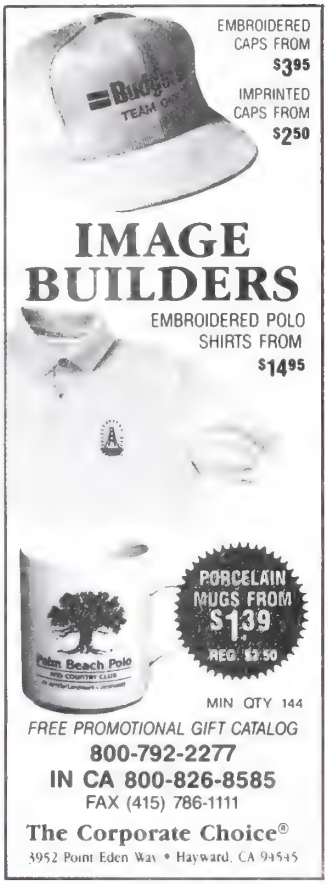
The Operational & Financial Control System For Shipping Professionals.....

Generates and Prints Airbills,Shipping Labels,& UPS Manifests.....
Control and trace COD Receipts for shipments....
Categorize Shipping Charges By Expense Allocation.....
Protects freight charges (Erroneous Invoices, Over Charges, Etc.) In house with Freight Bill Auditing And Payment Authorization.
Prepare "Approved Freight Charges Report" For Payables Department.....
Includes historical shipment data for reporting and analysis.....
Keep track of and Control Shipment Information.....
Ship any type of freight using any type of service..
Provides 45 different Financial and Transportational management reports 4 different ways...
Automatic Rating of Your Freight Shipment Airbills..
Track Freight Transit Times, weight distribution and carrier performance...
Rate Compare Feature Automatically Selects the 3 lowest cost Carriers with 3 levels of service.....
& Much, Much More.....

For More Information &/or a Demo Diskette Call: **Target Technology Concepts, Inc.**
203-775-8406

Corporate Gifts





EDITED BY AMY DUNKIN

Environment

MAKING YOUR OFFICE HUMAN-FRIENDLY

In the office, little things can mean a lot—like the chair, the lights, even the angle of a computer screen. With back problems making up 25% of workers' compensation claims by office executives, and repetitive-motion injuries on the rise, it pays to take a critical look at how your office is affecting you.

Whether you work at home or in an office building, a few simple changes can save you pain in the years to come. Equipment properly tailored to the body and its natural motion can decrease physical stress and boost productivity.

You can start a do-it-yourself ergonomic evaluation by noting how your chair fits you and how you're sitting in it. Your feet should be flat on the floor, with your legs at a 90-degree angle. The back cushion should have a curve filling in your lower back, acting much like the arches in shoes. Without that, the muscles supporting the spine will get tired.

Contoured cushions should distribute weight away from pressure points. For example, seat cushions that slope down a few inches before the knee won't restrict the circulation in your legs with a hard edge.

Tailoring your chair to your frame is important. Most chairs come with an adjustment for the backrest. More expensive models give you the option of changing the angle of the seat. Some chairs also allow you to adjust the tilt tension—how firm you want the chair back to be. But if adjustments are hard to make, you may just add to your stress level.

POWER TILT. Chairs with some ergonomic features start around $100. More elaborate examples begin at $400 and run to $3,000. Top-of-the-line models may include motorized adjustments or a "powered forward tilt" that moves the seat pan and chair back along with you as you lean forward or backward.

A type of seating well worth checking out is the kneeling chair. These backless chairs place you in a praying mantis position that maintains the natural inward curve of the back. "Kneeling chairs set up the entire body for the right positioning," says Susan Isernhagen, a Duluth (Minn.) ergonomic consultant for work injuries. For most people, they're very comfortable. You don't need back support because the chair redistributes your weight from your lower back and backside to your knees. Kneeling chairs cost from $100 to $400.

No matter how well-designed your chair is, it's important to get out of it and move around every half hour. Otherwise, you invite fati and muscle stiffness.

It's also up to you to range other components your office to the ic heights and angles for y body. If you're sitt straight in your chair, s experts say that the cente your computer screen sh be about 20 degrees be your eye level, so that yo gazing slightly downwa The distance between y eye and the screen shoul 24 to 28 inches, says Monson, a physical thera specializing in ergonomics New York-based Bradley Monson. As a rule, your r shouldn't be bent, but sh rest in a neutral position, anced between your head shoulders.

If you use a computer a where you place your board is crucial. It shoul on a surface a few inches er than your desk, wh

uld be about 30 inches h. With your elbows at 90 rees, and your arms and ds parallel to the floor, the board should be where r thumb joints are. Potenly debilitating conditions h as carpal tunnel syme, which affects the st and hand, can develop en keyboards are awkdly positioned, says Roger phens, an ergonomist with Occupational Safety & alth Administration in shington. Some of the ses of repetitive strain ines: "Elevated elbows, bent sts, and pounding the beje out of the keyboard."

he telephone is one of the st culprits when it comes neck problems. If you retedly bend your neck inst the receiver or cradle between your head and ulder, you compress the ts between the cervical ebrae and can damage ves. Speakerphones elimi that problem, but they be annoying. One option get a headset of the sort n by phone operators. y range from Radio ck's $50 model to a sleek, Mirage unit from Planics in Santa Cruz, Calif. If r office is noisy, you can a feature that blocks out of the ambient noise. You find headsets at phone consumer electronics es or by calling manufacers. Not all headsets work all phones, so before you , jot down the manufac-

Houseplants are pecially effective at eaning polluted air

r and model number of r phone.

ext, cast a critical eye on r lighting. Monson says best lighting is indirect, as a shaded light cast up inst a white ceiling so that ounces off and diffuses. close-up work, get task ting that shines sideways papers and doesn't pro e glare on your computer screen, which tires the eyes and can cause headaches.

Natural light is the easiest on the eyes. But unless you work at home, you may be stuck with fluorescent lights. "Even though there is some good-quality fluorescent lighting, there can be an unconscious hum that rubs against the nervous system, increasing tiredness and decreasing productivity," says Paul Edwards, co-author of *Working From Home* ($14.95, Jeremy P. Tarcher, 213 935-9980; revised edition out in October).

You can reduce fluorescent glare by replacing standard plastic prism coverings with grids that break up the light pattern. Edwards favors incandescent lighting, particularly Chromalox bulbs, which he says almost replicate natural daylight. Where a garden variety 60-watt bulb might cost around $1, a Chromalox 60-watt bulb can run you $7.

MOUNTING GREENERY. One invisible—and thus often overlooked—component of an office environment is air. Poor air quality may result in "sick-building syndrome"—rashes, headaches, fatigue, itchy eyes, and congestion. For a free booklet, *The Inside Story*, write the EPA Public Information Center, 401 M St. S. W., Washington D. C. 20460, or call 202 382-2080.

An easy way to improve air quality is to add plants. Certain houseplants that require low light are especially effective in filtering such chemicals as benzene and formaldehyde from the air, according to a NASA study. The space agency's plants of choice include English ivy, bamboo palm, green spider plants, and golden pothos.

Ergonomics is a growing specialty, but there's no central organization to turn to for referrals. However, physical or occupational therapists often serve as ergonomics consultants, starting at about $75 an hour. Some larger firms also specialize in ergonomics. And with just a few hours of homework, you can start turning your office environment from harsh to hospitable. *Suzanne Woolley*

WHAT THE DOCTOR ORDERED

Until I ask an ergonomics expert to evaluate the physical working conditions in my office, I don't realize that I am a "neck problem waiting to happen." All I know is that during a typical workday, I spend hours typing into a computer, with a phone receiver crammed between my left ear and shoulder. By the afternoon, my lower back and the right side of my neck are throbbing.

Fortunately, my chair is not the problem. According to my ergonomics consultant, physical therapist Lori Monson, it is "surprisingly well-designed," with lumbar support, small armrests, and adjustments for the backrest, seat pan, and height. But am I taking advantage of all this support? No way.

Monson notes that I am perched on the chair's edge. Using an instrument called a goniometer to measure the angle of my neck, she determines that I am craning my neck forward 15 degrees, rather than the proper three degrees. Because I am not relying on the backrest for support, my lower back slumps into a curve. This causes muscle strain and fatigue that is compounded by job-related stress.

TOE-TAPPING. Monson suggests I slide back fully into the chair and sit up straight. She tilts the seat pan to a forward incline of eight degrees to ease pressure on my thighs. And she advises me to buy a telephone headset to relieve the "significant cervical-joint compression" caused by scrunching my head and neck together to hold the receiver.

She then turns her attention to my computer monitor. It is way too close to my eyes and pitched straight forward rather than tilted back. Given concerns about electromagnetic-field emissions, Monson advises placing the monitor about 28 inches from my body. She also suggests I move it out of a cramped corner, where it's hard for me to stretch, into a more open space.

MONSON AND WOOLLEY: SIT UP STRAIGHT AND GET A HEADSET

ANDY FREEBERG

Following her on-site inspection, Monson gives me an 11-page report that spells out proposed ergonomic changes for my office and a regimen of exercises for my neck, back, and wrists. To stretch the side of my neck, I sit on my right hand, tuck my chin in, and gently pull my head to the left with my free hand. I do this three times for six counts each, then reverse direction.

The report includes alternative office layouts and diagrams of my regular and ideal postures. The news isn't all bad: "Suzanne gets up often and taps her feet frequently, both of which are excellent habits," the report says. Now if I can only develop the right habits to save my neck. *S. W.*

Autos

LIGHT, BUT NO LIGHTWEIGHT: THE ACURA NSX

HOT WHEELS: A $60,000 STICKER—BUT EXPECT TO PAY A 25% PREMIUM

It's a deceptive little car. To all outward appearances, it looks like one of those affordable Japanese two-seaters that offer more in looks than in raw power: a Toyota MR2, say, or Mazda RX-7. But the new Acura NSX, hitting dealers' showrooms on Aug. 20, is no mere runabout.

Beneath its svelte and well-mannered exterior is a savage machine that can give Ferrari and Porsche a run for their money. Unlike those European exotics, creature comforts are not sacrificed to high performance. The NSX is as easy to drive on congested commutes as it is fast and furious when flat out on a track.

Step on the gas and you're greeted by a clean, high-pitched note more reminiscent of Formula One racing engines than of the guttural growl of traditional sports cars. The Honda three-liter V-6 delivers a phenomenal 270 horsepower, enough to get you to 60 mph in well under six seconds. The engine can achieve extremely high rpms, which allows you to push up to 100 mph in third gear. And if you live near the Bonneville Flats, a few flicks of the wrist on the short-throw gearshift can seamlessly take the five-speed NSX to nearly 170.

The secret of the NSX's performance is its weight, only 3,000 pounds. Honda engineers crafted the chassis, the engine, and all exterior panels from aluminum. Although the NSX is tagged well under competing supercars, the aluminum construction has pushed the price to $60,000, the most expensive car ever to originate in Japanese design labs. Make that $60,000 list—Acura dealers are sold out for 1990. If you want one soon, you may have to pay a premium of $15,000 or more.

The novel susp sion in the NSX is s enough for racetr turns without w lowing, yet it still sorbs the bumps day-to-day motori And the traction-c trol system is sop ticated enough to ure out whether car is cornering h on dry pavement spinning its whe on slippery roads.

COZY CAR. The int or of the NSX is high-tech dream. F als are strai ahead, not skewed to right by an intruding wh well. The cockpit is ratio and uncluttered, with a matic climate control, cr control, and audio by B The car's cargo space is g erous, and it carries a n spare and an electric pum

Then there's the jack— minum, in its own fitted c partment. A small thing, haps—but it's that kind detail that has made the Ja nese so successful in the business. *Larry Armstr*

Smart Money

FUNDS GOT YOU FLUMMOXED? TRY A MULTIFUND

With more than 3,000 mutual funds on the market, it's hard to decide which to buy. Now, two no-load fund families are trying to make that choice easier. Vanguard Group and T. Rowe Price are both pushing mutual funds that parcel out money among their other mutual funds.

These multifund funds are selling convenience: Investors let a money manager decide which funds to own. They also offer relatively low risk. "When you buy a diversified portfolio of diversified portfolios, it leads to more mediocre results. But you're buying a more rock-steady performance," says Joseph Mansueto, president of Morningstar, a Chicago mutual-fund rating service.

True, critics say multifund funds are just a convenient way for fund companies to collect assets. "It's superfluous diversification," says John Markese, research director of the American Association of Individual Investors. But the funds do serve a purpose for some. Retirement investors like them because they get a portfolio of funds in their IRAs while paying only a single yearly, $10 custodial fee.

WORLDLY WISE. The newest entry is the Spectrum Income Fund, launched in July by T. Rowe Price. It owns five of the company's bond funds, plus a money market and stock fund. Spectrum Growth Fund, also a July launch, owns six stock funds, including two growth funds.

It's too early to evaluate the Spectrum funds. But Vanguard's STAR Fund, with $1 billion in assets, has posted a 12.9% average annual return from its launch in March, 1985, through June, 1990. It invests in four stock funds, including the well-regarded Windsor Fund, two bond funds, and a money market fund.

> The portfolios of these funds contain shares of other funds

Both Spectrum funds own international funds, giving them an edge over domestic-only Vanguard STAR, says Peter Van Dyke, president of the Spectrum funds. "Buy 50% of each, and you'll b the STAR Fund," he says.

And don't worry abo paying an extra layer of fe with STAR or Spectrum. Va guard and T. Rowe Pr don't charge for managi the fund portfolios. Investo just pay their slice of t fees on the underlyi funds, which came to 0.4 in 1989 for Star and are es mated at 0.89% to 1.04% f the Spectrum Income Fu and 0.80% to 0.94% for t Growth Fund.

The STAR and the Sp trum funds are not act managers of their asset po folios and only change t mix within limited guidelin They don't offer as much versification as asset-allo tion funds, which invest rectly in such assets as g and real estate. But the gree of diversification th do offer appeals to invest who want to spread th eggs among one fund fa ily's baskets. *Leah Nath*

One of the country's fine resorts offers one of the country's finest values.

A real value involves the exchange of exceptional quality for a fair price. ❖ **Such as 3 days and 2 nights at Rancho Bernardo Inn for $222.** ❖ The price includes a spacious room, unlimited golf on 45 challenging holes and tennis on 12 tournament quality courts, complete breakfasts and dinners of your choice at either of our award winning restaurants, transportation to and from San Diego Airport...and that subtle touch of elegance and care found only in the best resorts. Visit soon. ❖ Price is per person, based on double occupancy. ❖ For additional nights, add $111 per person. ❖ Rates effective through 9/30/90.

(800) 542-6096. Outside California (800) 854-1065.

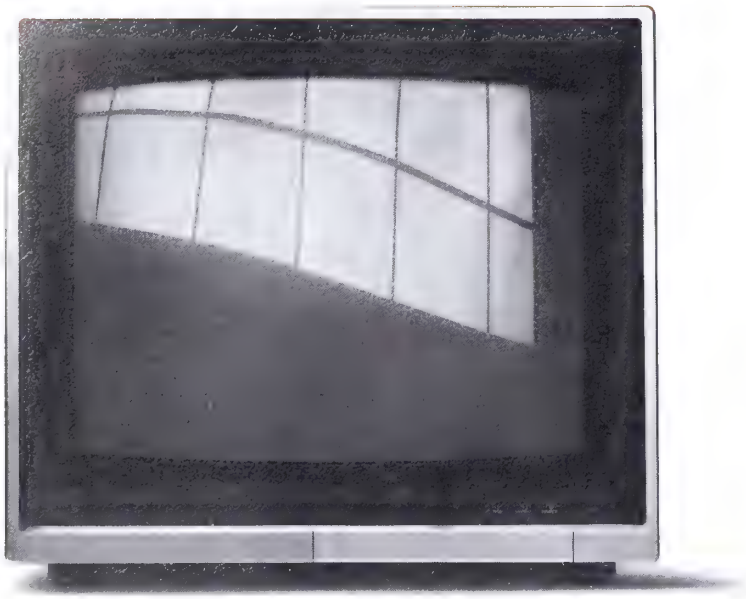
RANCHO BERNARDO INN®

IN WEATHER-PERFECT SAN DIEGO

FOUR DIAMOND AWARD 1990

Mobil Travel Guide 1990

JC RESORTS. RANCHO BERNARDO INN • SURF & SAND HOTEL • TEMECULA CREEK INN



Turn On The Meeting.

Just touch a button. And instantly make your presence felt like never before.

Meet face-to-face with 30 branch managers at once. Coordinate product development with your marketing, engineering and manufacturing sites. Speed up the decision making process. Imagine the possibilities.

Meet the future of meetings. Video Communication Services from Pacific Bell. Or, how to be everywhere at once – without going anywhere at all.

Pacific Bell can provide the diverse range of capabilities necessary to meet all your company's video teleconferencing needs today. In a system that brings you the reliability of our transport network, connected to the highest quality hardware available.

And of course, Pacific Bell will handle everything. From design to installation to on-going support.

After all, we have our fair share of experience. Immediately following the October 17th earthquake in the Bay Area, we coordinated a system that allowed for critical video communication among three key emergency agencies in Sacramento, San Francisco and Mountain View.

"The unanimous response of all participants was extremely favorable," said Jon Madzelan, Chief of Telecommunications for the Office of Emergency Services in Sacramento. "We all now wonder if we could have done as well without it! I doubt it."

Now it's your turn. For full details and a demonstration, contact your Pacific Bell Account Executive, or call 1-800-622-0735, ext. 201.

Video teleconferencing from Pacific Bell. You've got to start meeting like this.

We're making things easier.℠

A PACIFIC TELESIS COMPANY

PACIFIC BELL
Data Communications Group

© 1990 Pacific Bell

102B-CA

The pleasure of sharing the genuine warmth and charm of Malaysia never ends

Wherever you fly, to over 70 destinations across 5 continents, we'll welcome you the moment you step on board, as we would an honoured guest in our own home, sharing with you a world of enchantment that is Malaysia.

Whether you are in the luxury of First Class, or the comfort of Golden Club, you'll enjoy the renowned inflight service of genuine warmth and charm that only Malaysians can offer.

The pleasure of flying never ends, when you are on the international airline with a modern fleet that includes the latest 747-400s.

Experience it on any of our 5 flights to Malaysia, where you'll have a choice of 25 flights weekly to the Orient and 7 to Australia. Or from Los Angeles, you can take the 3 non-stops to Tokyo.

malaysia AIRLINES

ENCHANTMENT WHEREVER YOU FLY

AMMAN•AMSTERDAM•AUCKLAND•BANDAR SERI BEGAWAN•BANGKOK•BRUSSELS•COLOMBO•DELHI•DENPASAR•DUBAI•FRANKFURT•FUKUOKA•GUANGZHOU (CANTON)•HAT YAI•HO CHI MINH CITY •HONG KONG•HONOLULU•ISTANBUL•JAKARTA•JEDDAH•KARACHI•KUALA LUMPUR•LONDON•LOS ANGELES•MADRAS•MANILA•MAURITIUS•MEDAN•MELBOURNE•PARIS•PERTH•PHUKET•PONTIANAK•SEOUL •SINGAPORE•SYDNEY•TAIPEI•TARAKAN•TEHRAN•TOKYO•YANGON (RANGOON)•ZURICH & 33 DESTINATIONS WITHIN MALAYSIA

FOR RESERVATIONS CONTACT YOUR FAVOURITE TRAVEL AGENT OR CALL MALAYSIA AIRLINES LOS ANGELES TEL (213) 642-0849 TOLL FREE 1-800-421-8641 SAN FRANCISCO TEL (415) 788-0555/6/7 CHICAGO TEL (312) 943-0925 NEW YORK TEL (212) 697-8994 TOLL FREE 1-800-423-8641 HONOLULU TEL (808) 941-3096

AMC M-2C

Tenneco: where we're going.

A company's long range plan should have specific financial objectives. These are Tenneco's. One: earn a 20 percent or higher return on shareholders' equity. Two: generate cash each year in excess of our requirements for capital investment, working capital and dividends. Three: increase our earnings per share by at least 15 percent each year. Can we do it? Just watch. We're a diversified industrial company that knows where it's going. To learn more, call 1-800-345-9027.

TENNECO

Tenneco Gas (pipelines) • J I Case (farm and construction equipment) • Newport News Shipbuilding • Tenneco Automotive
Packaging Corporation of America • Albright & Wilson (specialty chemicals) / Tenneco Minerals

102D-CA

dex to Companies

index gives the starting page for a story or fea- with a significant reference to a company. Most diaries are indexed under their own names. panies listed only in tables are not included.

eny International 42
can Barrick urces 74
can Express 58
can International ip 80
tech 40
Entertainment vork 58
74
n-Tate 88
35
40, 64
ic Richfield 74
89

ck & Wilcox 92
2
r Industries 74
68
Stearns 5
el 92
& Decker 78
Action Design 68
essland 42

pillar 92
58
er Medical 64
Manhattan 80
ler 38, 58
ink 35
Cola 33, 62, 80
bia Gas System 74
ustion Engineering 92
olidated ghtways 74
nental Can 62
ex Computer 86
ia 74
Research 86
n Cork & Seal 62

D

Daimler Benz 35, 58
Darling 58
Deere 28, 92
Disney 33
Dragon Seed 80
Dresdner Bank 35
Drexel Burnham Lambert 64
Du Pont 58, 68
Dun & Bradstreet 18
Dyansen 106

F

Fanuc 93
Fidelity Fund 74
Ford 38, 57, 58, 74
Fort Howard 80
Foster-Miller 92
Fox Software 88
Freightliner 5
Fuji 58, 93
Fujitsu 93

G

Gateway Advisors 78
Globe Manufacturing 68
GM 5, 38
Great American Communications 74

H

Hitachi 93
Hoechst 35
Holiday 58
Honda 10
Hydrobotics Engineering Canada 92

I

IBM 64, 86, 92
IFIL 35
Ishikawajima-Harima Heavy Industries 93

J

J.P. Morgan 35
Japan Air Lines 62
Japonica Partners 42
Johnson & Johnson 57

K

K mart 68
Kajima 93
Komatsu 93

L

La Crosse Trust 5
Li & Fung 80

M

Mack 5
Martin Marietta 92
Matsushita Electric 93
Mazda 10
McDonald's 80
McKinley Allsopp 78
Metallgesellschaft 35
Mobil 35
Monsanto 28
Morfax 92
Morgan Stanley 35
Motorola 40
Mr. Coffee 78

N

Nantucket 88
Navistar 5
NEC 93
NICOR 74
Nissan 10
Northern Telecom 86
Nynex 40

O

Odetics 92
ONEOK 74
Oppenheimer & Co. 74

P

Pacific Cup 80
PacTel Cellular 40
Pechiney 62
PepsiCo 33, 62
Pfizer 42
Philip Morris 33, 74
Placer Dome 74
Plantronics 100
Primerica 58
Procter & Gamble 33
Promus 58
Prudential Insurance 80

Q

Qualcomm 40

R

RedZone Robotics 92

S

Safety Diagnostics 89
Salomon Brothers 58
Schroders 58
Seagull Energy 74
Shiley 42
Shimizu 93
Simmons 80
Software Toolworks 106
St. Martin's Property 35
Stockbridge Partners 74

T

T. Rowe Price 102
Tapemeasure 68
Teck 74
Teraplex 89
Texaco 74
Time Warner 106
Tom Rettig Associates 88
Toshiba 93
Toyota 10
Transitions Research 92

U

U-Haul International 5
Unocal 74
USX 57, 74

V

Vanguard Group 102
Vital-Link 88

W

Wal-Mart 74
Wesray Capital 80
Westinghouse Electric 92
Wolfensohn (James D.) 58

BREITLING
1884

INSTRUMENTS
FOR PROFESSIONALS

AEROSPACE,
analog and digital chronograph.
18 kt. white gold, titanium bicolor, titanium.
Leather strap or metal bracelet.

WORLD
EQUESTRIAN
GAMES
STOCKHOLM
1990

OFFICIAL TIMING
BREITLING

BREITLING USA INC.
TWO STAMFORD LANDING, SUITE 165,
STAMFORD, CT 06902
TEL.: 203/327 14 11
FAX: 203/327 25 37

ONE LEADER SALUTES THREE OTHERS

For the past fourteen years, Business Week has recognized outstanding leadership in the truck industry by conferring the Truck Dealer of the Year Award. We do this in association with the American Truck Dealers. In addition to the Grand National Winner, we are honoring three finalists, who were chosen from seventeen nominees. These finalists are Mr. Chuck Jorgensen, a Peterbilt and Hino dealer in Waukesha, Wisconsin; Mr. Marvin Rush, a Peterbilt and GMC dealer in San Antonio, Texas; and Mr. Bernard Uhl, an International and Mitsubishi Fuso dealer in Louisville, Kentucky.

All three gentlemen were selected by a panel of judges from the Columbia University Graduate School of Business in recognition of their successf dealerships and loyal commitment to the communities. Business Week proudly salute Mr. Chuck Jorgensen, Mr. Marvin Rush, an Mr. Bernard Uhl, the 1990 Business Week/AT Truck Dealer of the Year Finalists.

Mr. Chuck Jorgensen
1990 TRUCK DEALER OF THE YEAR
FINALIST

Mr. Marvin Rush
1990 TRUCK DEALER OF THE YEAR
FINALIST

Mr. Bernard Uhl
1990 TRUCK DEALER OF THE YEAR
FINALIST

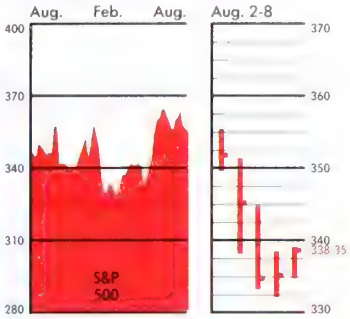
BusinessWeek

nvestment Figures of the Week

IMENTARY

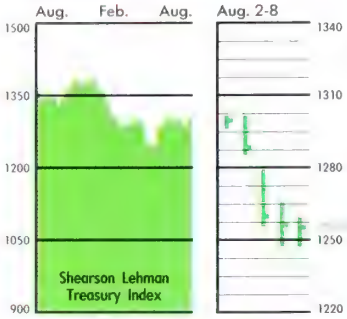
markets had a disastrous
c. Iraq's invasion of Kuwait on
2 pushed stocks and bonds
a steep, four-day decline.
oil issues bucked the trend.
skid was halted on Aug. 8
prices rose following Presi-
Bush's decision to send
s into the Middle East. Oil
s had hit five-year highs on
7, with crude prices reaching
10 a barrel. Recession fears
deepened by the 0.3 per-
age-point rise to 5.5% in the
unemployment rate.

STOCKS



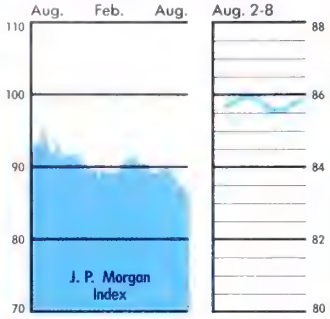
52-week change **–2.5%** | 1-week change **–4.8%**

BONDS



52-week change **–6.7%** | 1-week change **–4.4%**

THE DOLLAR



52-week change **–6.1%** | 1-week change **+0.2%**

ARKET ANALYSIS

STOCKS	Latest	% change Week	% change 52-week
JONES INDUSTRIALS	2734.9	–5.7	1.8
COMPANIES (Russell 1000)	174.9	–5.0	–4.5
LL COMPANIES (Russell 2000)	151.1	–6.0	–14.5
COMPANIES (Russell 3000)	185.8	–5.0	–5.2

EIGN STOCKS	Latest	% change (local currency) Week	% change (local currency) 52-week
ON (FINANCIAL TIMES 100)	2237.5	–4.3	–5.2
O (NIKKEI INDEX)	28,509.1	–7.6	–18.2
NTO (TSE COMPOSITE)	3476.0	–2.6	–13.2

FUNDAMENTALS	Latest	Week ago	Year ago
90-DAY TREASURY BILL YIELD	7.6%	7.7%	8.2%
30-YEAR TREASURY BOND YIELD	8.9%	8.4%	8.2%
S&P 500 DIVIDEND YIELD	3.5%	3.4%	3.0%
S&P 500 PRICE/EARNINGS RATIO	15.7	16.5	13.4

TECHNICAL INDICATORS	Latest	Week ago	Reading
S&P 500 26-week moving average	347.1	346.7	**Negative**
Stocks above 26-week moving average	25.9%	42.8%	**Neutral**
Speculative sentiment: Put/call ratio	0.45	0.42	**Positive**
Insider sentiment: Vickers sell/buy ratio	1.26	1.27	**Positive**

DUSTRY GROUPS

BRIDGE INFORMATION SYSTEMS INC.

E-WEEK LEADERS	% change 4-week	% change 52-week	Strongest stock in group	% change 4-week	% change 52-week	Price
AND GAS DRILLING	22.2	38.1	ROWAN	28.9	65.7	14½
WELL EQUIPMENT AND SERVICES	17.8	48.8	BAKER HUGHES	25.8	64.4	32⅞
LD MINING	15.5	22.9	HOMESTAKE MINING	21.7	61.5	21
MESTIC OIL	12.3	20.1	ORYX ENERGY	25.1	48.3	53
ERNATIONAL OIL	12.0	25.6	TEXACO	14.1	31.9	64⅝

E-WEEK LAGGARDS	% change 4-week	% change 52-week	Weakest stock in group	% change 4-week	% change 52-week	Price
MPUTER SOFTWARE AND SERVICES	–27.1	–15.6	COMPUTER ASSOCIATES INTL.	–53.5	–58.6	7½
TELS AND MOTELS	–24.5	–58.5	PRIME MOTOR INNS	–37.5	–84.8	5
LINES	–24.2	–34.7	UAL	–35.7	–38.6	101
MING	–23.4	–11.0	CAESARS WORLD	–26.5	–64.9	13½
SONAL LOANS	–21.2	–30.1	HOUSEHOLD INTERNATIONAL	–27.7	–39.1	35⅝

UTUAL FUNDS

MORNINGSTAR INC.

ERS

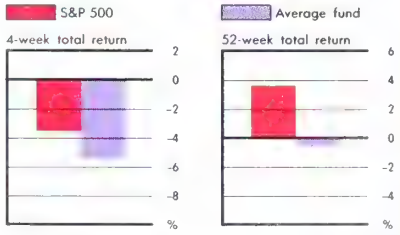
eek total return	%
ELITY SELECT ENERGY SERVICE	14.8
IANCIAL STRATEGIC ENERGY	12.2
RATEGIC INVESTMENTS	11.5

ek total return	%
UITY STRATEGIES	72.6
ELITY SELECT ENERGY SERVICE	52.0
ROWE PRICE INTERNATIONAL DISCOVERY	42.3

LAGGARDS

Four-week total return	%
PRUDENT SPECULATOR LEVERAGED	–23.3
BULL & BEAR SPECIAL EQUITIES	–17.9
SLH SMALL CAPITALIZATION	–16.4

52-week total return	%
PRUDENT SPECULATOR LEVERAGED	–31.5
WASHINGTON AREA GROWTH	–27.9
FIDELITY SELECT REGIONAL BANKS	–27.5



LATIVE PORTFOLIOS

DATA RESOURCES INC.

r amounts
sent the present
of $10,000
ted one year
n each portfolio

ntages indicate
ay total returns

Money market fund	Gold	Treasury bonds	U. S. stocks	Foreign stocks
$10,709	**$10,344**	**$9,957**	**$9,729**	**$9,042**
+0.14%	+2.94%	–4.51%	–5.99%	–7.95%

n on this page are as of market close Wednesday, Aug. 8, 1990, unless otherwise indicated. groups include S&P 500 companies only; performance and share prices are as of market close Aug. 7. Mutual fund returns are as of Aug. 3. Relative portfolios are valued as of Aug. 7. A more detailed explanation of this page is available on request.

THE RIGHT RESPONSE IN THE MIDEAST

The very thing we all feared has happened: A despot in a nonaligned country has thrown caution to the winds and, using massive, modern forces, invaded a neighbor. But compared with the bad old days when the polarized major-power blocs would maneuver to inflict political and economic damage on each other, the first post-cold-war crisis is evolving in a comparatively heartening way.

True, the Kuwaiti royal family has been displaced, and the Saudis are rightly alarmed by Saddam Hussein's troops massed on their frontier. International borders have been violated, and may soon be again, while the industrialized world is dismayed at the possibility of interrupted supplies of oil and natural gas.

But despite the obvious dangers, the crisis has already prompted some historic and encouraging developments, not the least of which is the display of world leadership from President Bush. The United Nations Security Council voted unanimously to condemn Saddam's invasion of Kuwait and imposed a series of tough and effective sanctions—a far cry from the wimpish Security Council declarations of yesteryear. Equally unprecedented, Secretary of State James A. Baker III and Soviet Foreign Minister Eduard A. Shevardnadze met in Moscow to call for a cessation of hostilities, and the two formerly antagonistic powers are now working together as plans are laid for a Persian Gulf blockade. And after nearly a decade of power vacuum in the Middle East, Defense Secretary Richard B. Cheney flew to Jedda and returned home with the Saudi King's approval of a multilateral force, including not only Americans but also Moroccan and other troops, to take up positions on the border of that desert kingdom.

By sending U. S. troops to Saudi Arabia, President B has made it plain—to Iraq, the Saudis, and the rest of world—that the U. S. will firmly oppose any move aga the Saudis and their oil. Regardless of the absence of for commitments, we have an unmistakable obligation to def Saudi Arabia, the gulf's biggest oil producer, as a resul our close ties with the Saudis over many decades. The patch of U. S. ground troops as part of an international fo spells out positively that we will use military means to defend the Saudis if necessary, a message reinforced by movement of air and naval forces into the area.

The slow U. S. reaction to the threats against Kuw probably damaged U. S. credibility among the gulf sta that have looked to Washington for protection and are ma sources of oil for our allies. That slackness contrasts viv with the decisiveness shown by Washington once it clear the Saudis were also threatened. But the U. S. ne had really close ties with the Kuwaitis—who tried to m tain good relations with the Soviets also during the c war—and we never had a clear commitment to defend wait.

Saudi Arabia is more defensible than Kuwait, of cou because Iraqi tanks would have to cross open desert reach the main Saudi oil fields or any other signific objectives. The open terrain would make Iraqi tanks e targets for air strikes. Iraqi supply lines would make si larly ideal marks—as would military bases around Bagh Moving U. S. troops into Saudi Arabia was the right thing do militarily and politically. Had it not done so, the Admi tration would have failed to take advantage of the end of cold war and surrendered its claim to world leadership.

WEANING THE U.S. FROM ITS OIL ADDICTION

The explosion in oil prices that has followed the embargoes on Iraqi and Kuwaiti oil confronts Washington with a thorny policy issue. The justification for raising gasoline taxes to conserve energy and minimize the growing U. S. dependence on oil imports is stronger than ever. However, because the economy is threatened with recession, imposing such taxes would unavoidably lead to a full-blown economic downturn—something that the nation can scarcely afford.

Fortunately, there is a way out of this dilemma. The Administration and Congress should agree to a gasoline tax as part of their deficit-reduction plan, but the tax should only kick in when supply and demand come into normal balance in the oil market. We must not allow Saddam's irresponsibility to deflect us from imposing realistic energy taxes. Today, surely the American public is more prepared to accept conservation measures that make the country less susceptible to the likes of an oil thief of Baghdad.

What has happened in the last few weeks should rem us of the mistakes we made in response to the 1974 oil-p shock. In that crisis, the Administration and Congress sh ed U. S. oil consumers and processors from the full im of the price rise by continuing oil-and-gas price cont already in place and by allocating oil supplies to refiner As a result, the incentive to conserve oil was diminished, the market's allocation and pricing mechanisms were dist ed. In contrast, Europe and Japan quickly passed price hi along to consumers—and often augmented those hikes extra oil taxes to bite deeper still into oil demand.

There are other ways to decrease our dependency imported oil. Conservation measures such as the univers disregarded 55-mph speed limit must be reimposed in s states and enforced everywhere. Dipping into our strat oil reserves to tide us over, as some have suggested, is a idea. Saving oil is more essential than ever—and, when immediate crisis passes, so is a higher tax on gasoline.

August 27

FRANK LORENZO'S LAST DAYS AT CONTINENTAL

3 9042 02350200 5

RADIN
RICATE CASE OF E
PAGE 70

BusinessWeek

AUGUST 27, 1990 A McGRAW-HILL PUBLICATION $2.00

THE VISE TIGHTENS

PAGE 22

Pressure mounts against Iraq. How well will it work–and how soon?

The crisis strains some traditional alliances. And the markets stay worried.

U.S. SOLDIER IN SAUDI ARABIA

BURLINGAME
AUG 1 1 1990
LIBRARY

35
7436

BURLINGAME PUBLIC LIBRARY
480 PRIMROSE RD
BURLINGAME CA 94010
0602 10581160 SEP91 T02
**********CAR-RT-SORT**CR30

"They didn't design it, or build
even sell it. But they fixed it

"Over the years we've bought computers and software from lots of different vendors, so our company's system is sort of mixed up.

"But our service agreement isn't.

"It covers all our systems and software, you don't have to be a lawyer to understand it, and it has only two names on it.

"Ours and IBM's."

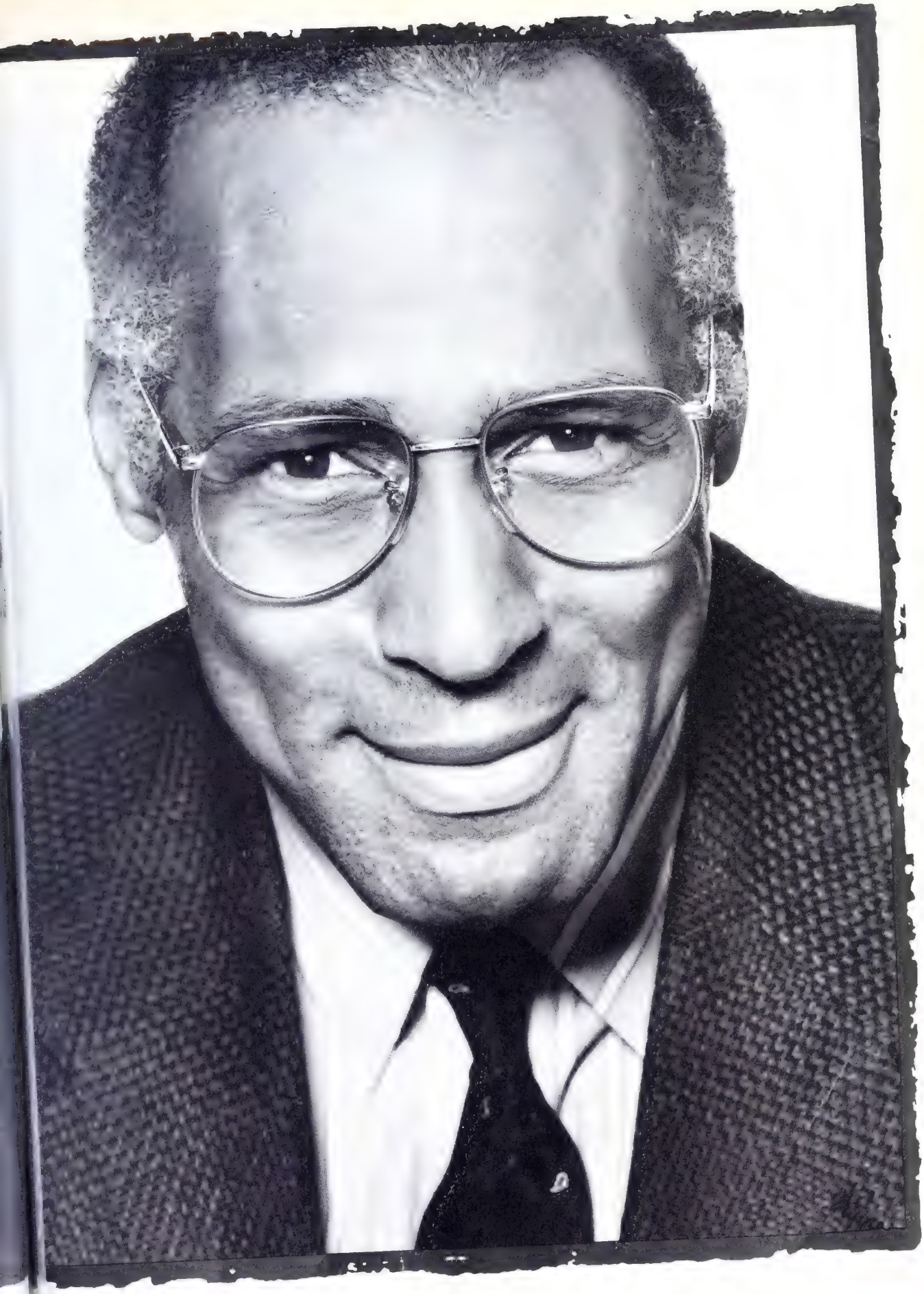
The Solution. When a computer is down or if your software is raising more questions than it answers, that's no time to learn that your support system doesn't work either.

But it can happen. With systems from multiple vendors, you can waste precious time just trying to figure out who's responsible for what gear, or who can help you unravel the mysteries of software.

But with an IBM service agreement, we can help you with everything, and 24 hours a day. To learn more about IBM service, call us at 1 800 IBM-6676, ext. 960.

IBM

© 1990 IBM Corporation



NUMBER 3175

BusinessWeek

AUGUST 27, 19

BAGHDAD MARKETPLACE: WITH FOOD AND SUPPLIES STILL COMING IN THROUGH JORDAN, THE EMBARGO IS TIGHT, BUT NOT AIRTIGHT

Cover Story

22 THE VISE TIGHTENS
President Bush is squeezing Iraq with all his might, mobilizing an array of diplomatic, economic, and military weapons not seen since World War II. Saddam has begun to look desperate, making peace overtures, trying to buy time. And it is time that will decide the outcome. Can Bush maintain the domestic and international support he needs long enough to bend the strongman?

25 THE GULF: SLUMP AHEAD?
The loss of confidence may end the boom in its oil-rich economies

27 PROBLEM ALLY
The oil crisis may bring new rifts between the U. S. and Japan

28 BIG ALARMS, LITTLE ACTION
Only much higher gas prices are likely to renew conservation efforts

30 THE SADDAM MARKET
Around the globe, the invasion has stopped bulls in their tracks

Top of the News

32 NO TIME FOR LORENZO
How 'Frankie Smooth Talk' ran out of options

34 DRAMA AT THE BIG STORE
Brennan has taken control of Sears' retailing. But will he shift strategy?

35 REMEMBER THIS GUY, DONALD?
Trump's bankers may have forced him to hire an old foe

35 COMMENTARY
What if auto execs were given the cars that unhappy buyers returned?

36 CENTRUST AND THE SAUDI
Probers study the failed thrift's links to Ghaith Pharaon and BCCI

38 THE POSTMASTER'S PLAN
Tony Frank faces tough union talks over the changes he's seeking in inefficient work rules

40 IN BUSINESS THIS WEEK
Woe for AmBase, Goldman Sachs, U. S./Soviet ties, adopt-a-salmon, hot funds, airline fuel prices

International

44 INDONESIA
It's becoming the hottest of Asia's hot spots, but many fear Indonesian industry will choke on its success

49 INTERNATIONAL OUTLOOK
With Yeltsin pushing, Gorbachev pulls out a new economic plan

Economic Analysis

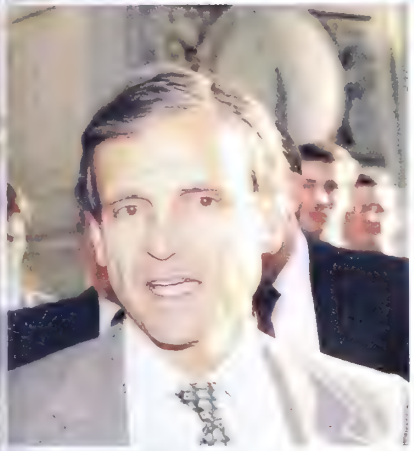
14 ECONOMIC VIEWPOINT
Roberts: Saddam's star hostages are Bush and the U. S. economy

18 ECONOMIC TRENDS
The oil shock, 'echo boomers' cause crime to rise, job numbers

19 BUSINESS OUTLOOK
Why the jolt from Iraq won't rouse inflation

Government

41 WASHINGTON OUTLOOK
Bush warms up to a game of 'pin th recession on someone else'



2 **FRANK LORENZO'S FINAL DAYS: HIS CHAOTIC DECADE-LONG REIGN IS OVER—AND TO CONTINENTAL AIRLINES' DIRECTORS, THE SEVERANCE WAS WORTH THE $30.5 MILLION**

90 **THE WHOLE WORLD IN YOUR HANDS: NEW ELECTRONIC REFERENCE GUIDES CAN HELP YOU SPELL, TRANSLATE PHRASES BETWEEN LANGUAGES, OR FIND JUST THE RIGHT WORD**

70 **OH, WHAT A TANGLED WEB: AFTER NEARLY A DECADE, THE SEC MAY BE MAKING HEADWAY IN THE ELLIS AG INSIDER-TRADING PROBE. BUT EVERY FINDING RAISES MORE QUESTIONS**

The Corporation

2 **KODAK LOOKS SHARPER**
The quarter is sunny—but the new-product outlook is blurry

6 **JOHNSON PRODUCTS REBUILDS**
It's repairing damage to sales

People

8 **DISTILL LIFE**
Michel Roux's savvy marketing of Absolut has allowed him to become a patron of the arts

0 **ED BASS'S VISION THING**
Is his Biosphere II for real?

Marketing

4 **NO WAY TO TREAT A LADY**
Gillette's personal-care products are a hit with men, but not with women

Industries

6 **HOSPITAL, HEAL THYSELF**
Poor management is producing a flow of red ink at U. S. hospitals

Finance

0 **UNRAVELING THE ELLIS AFFAIR**
The SEC's insider-trading probe is growing beyond a Zurich brokerage

4 **THE SEC LOOKS ABROAD**
The agency has beefed up its staff and is launching more investigations of foreign investors suspected of insider trading

76 **BLUES BROTHERS**
Salomon is selling Philipp Brothers, once a power in commodity trading

78 **INSIDE WALL STREET**
The last of National Semi's red ink?
A healthy future in gum disease
Why the UAL deal may still fly

95 **INVESTMENT FIGURES OF THE WEEK**

Information Processing

80 **REWINDING CITIZEN**
The world's No. 1 watchmaker is expanding its high-tech businesses, opening new plants, and planning to market its own laptops

58 **THE ABSOLUT TRUTH: VODKA IMPORTER MICHEL ROUX MADE ABSOLUT A HUGE SUCCESS. NOW, HE'S TRYING TO DO THE SAME FOR A NEW GIN, SAPPHIRE BOMBAY**

Science & Technology

83 **THE 'ROBO-MITE' WARS**
Japan is pouring big bucks into research on very little machines, and that could allow it to to overcome a U. S. lead

84 **GRIDLOCK-BUSTERS?**
GM and others are working on dashboard navigation systems that may help avoid traffic snarls

89 **DEVELOPMENTS TO WATCH**
Making polluted water pure, a safer test for birth defects, tuning in tough-to-get stations, composting fast-food waste, stay-in-shape cotton

Personal Business

90 **COMPUTERS:** Handheld references
TRAVEL: Luxury for a pittance
SMART MONEY: Aluminum shines
LEISURE: Touring the Beer Belt

Features

4 **BUSINESS WEEK INDEX**

6 **READERS REPORT**

12 **BOOKS**
Johnston: *Roller Coaster: The Bank of America and the Future of American Banking*

94 **INDEX TO COMPANIES**

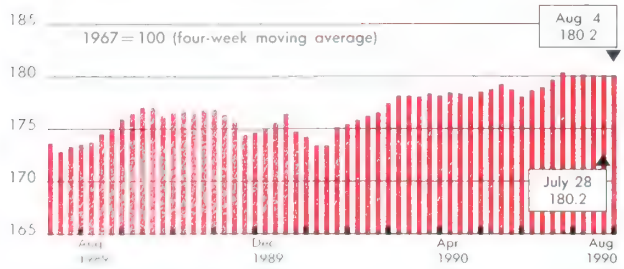
96 **EDITORIALS**
Allies: This is your crisis, too
How to run an airline into the ground
No foreign investor is above the law

ness Week (ISSN 0007-7135) published weekly, except for one issue in January, by McGraw-Hill Inc U S subscriber rate $39 95 per year In Canada, one year CDN $54 95 Single es $2 00 Executive, Editorial, Circulation, and Advertising Offices 1221 Avenue of the Americas, New York, N Y 10020 Second-class postage paid at New York, N. Y , and at additional mailing es. Postage paid at Montreal, P. Q. Registration Number 9010 Title Reg in U S Patent Office **Postmaster:** Send address changes to BUSINESS WEEK P O Box 430, Hightstown, N J 08520

BusinessWeek Index

PRODUCTION

Change from last week: 0.0%
Change from last year: 3.7%

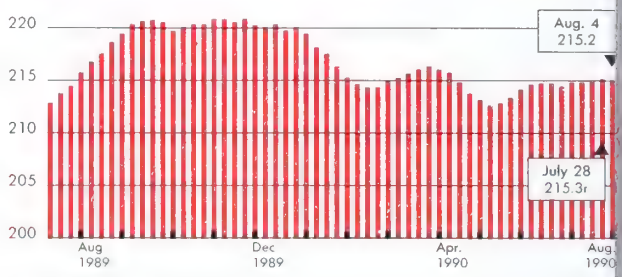


The production index was unchanged in the week ended Aug. 4. The index has been flat for most of the summer, indicating the sluggishness in the factory sector. Seasonally adjusted output of trucks, autos, coal, paperboard, and rail-freight traffic was down, while steel, crude-oil refining, lumber, and paper production increased. Electric-power output was unchanged. Prior to calculation of the four-week moving average, the index fell to 179.1, from 179.6.

BW production index copyright 1990 by McGraw-Hill Inc

LEADING

Change from last week: –0.1%
Change from last year: –0.3%



The leading index fell slightly for the week ended Aug. 4, as the index continues to show little movement. For the latest week, lower bond yields, a smaller rate of decline in materials prices, and a faster pace of real estate loans offset lower stock prices, and slower growth in M2. The number of business failures was flat from the previous week. Before calculation of the four-week moving average, the index increased to 215.6, from 214.7 in the week before.

Leading index copyright 1990 by Center for International Business Cycle Research

PRODUCTION INDICATORS

	Latest week	Week ago	% Change year ago
STEEL (8/11) thous. of net tons	1,901	1,858 #	4.6
AUTOS (8/11) units	122,969	96,041r #	14.7
TRUCKS (8/11) units	67,741	70,530r #	–10.9
ELECTRIC POWER (8/11) millions of kilowatt-hours	61,022	62,926 #	6.2
CRUDE-OIL REFINING (8/11) thous. of bbl./day	14,388	14,455 #	4.9
COAL (8/4) thous. of net tons	19,960 #	20,493	10.2
PAPERBOARD (8/4) thous. of tons	745.2 #	748.2r	0.4
PAPER (8/4) thous. of tons	758.0 #	751.0r	3.0
LUMBER (8/4) millions of ft.	491.7 #	487.7	–0.5
RAIL FREIGHT (8/4) billions of ton-miles	20.4 #	20.7	7.9

Sources: American Iron & Steel Inst., *Ward's Automotive Reports*, Edison Electric Inst., American Petroleum Inst., Energy Dept., American Paper Inst., WWPA[1], SFPA[2], Association of American Railroads.

FOREIGN EXCHANGE

	Latest week	Week ago	Year ago
JAPANESE YEN (8/15)	147	150	143
GERMAN MARK (8/15)	1.56	1.60	1.96
BRITISH POUND (8/15)	1.90	1.86	1.57
FRENCH FRANC (8/15)	5.24	5.36	6.62
CANADIAN DOLLAR (8/15)	1.14	1.15	1.18
SWISS FRANC (8/15)	1.30	1.35	1.69
MEXICAN PESO (8/15)[3]	2,878	2,871	2,529

Sources: Major New York banks. Currencies expressed in units per U. S. dollar, except for British pound expressed in dollars.

PRICES

	Latest week	Week ago	% Change year ago
GOLD (8/15) $/troy oz	398.400	384.750	8.4
STEEL SCRAP (8/14) # 1 heavy, $/ton	118.00	118.00	8.3
FOODSTUFFS (8/13) index, 1967 = 100	216.0	215.9	–1.8
COPPER (8/11) ¢/lb.	134.3	131.8	13.7
ALUMINUM (8/11) ¢/lb.	81.0	80.0	–0.4
WHEAT (8/11) # 2 hard, $/bu.	2.91	2.90	–31.0
COTTON (8/11) strict low middling 1-1/16 in., ¢/lb.	79.35	79.31	13.7

Sources: London Wed. final setting, Chicago mkt., Commodity Research Bureau, *Metals Week*, Kansas City mkt., Memphis mkt.

LEADING INDICATORS

	Latest week	Week ago	% Chan year a
STOCK PRICES (8/10) S&P 500	336.61	352.26	–3
CORPORATE BOND YIELD, Aaa (8/10)	9.34%	9.19%	4
INDUSTRIAL MATERIALS PRICES (8/10)	104.6	102.5	1
BUSINESS FAILURES (8/3)	267	269	27
REAL ESTATE LOANS (8/1) billions	$378.4	$377.2	10
MONEY SUPPLY, M2 (7/30) billions	$3,285.3	$3,284.6r	5
INITIAL CLAIMS, UNEMPLOYMENT (7/28) thous.	344	355	4

Sources: Standard & Poor's, Moody's, *Journal of Commerce* (index: 1980 = 100), Dun Bradstreet (failures of large companies), Federal Reserve Board, Labor Dept. CIBCR seasonally adjusts data on business failures and real estate loans.

MONTHLY ECONOMIC INDICATORS

	Latest month	Month ago	% Chan year a
INDUSTRIAL PRODUCTION (July) total index	109.9	109.9r	1
CAPACITY UTILIZATION (July)	83.4%	83.6%	–0
RETAIL SALES (July) billions	$149.5	$149.4r	2
PRODUCER PRICE INDEX (July) finished goods	117.5	117.6	3

Sources: Federal Reserve Board, Census Bureau, BLS

MONETARY INDICATORS

	Latest week	Week ago	% Chan year a
MONEY SUPPLY, M1 (7/30)	$809.8	$807.8r	4
BANKS' BUSINESS LOANS (8/2)	320.6	319.6r	0
FREE RESERVES (8/9)	220	351r	–66
NONFINANCIAL COMMERCIAL PAPER (8/2)	145.8	145.0	18

Sources: Federal Reserve Board (in billions, except for free reserves, which are expressed a two-week period in millions).

MONEY MARKET RATES

	Latest week	Week ago	Year ago
FEDERAL FUNDS (8/14)	8.14%	8.05%	9.04
PRIME (8/15)	10.00	10.00	10.50
COMMERCIAL PAPER 3-MONTH (8/14)	7.82	7.74	8.60
CERTIFICATES OF DEPOSIT 3-MONTH (8/15)	7.89	7.90	8.76
EURODOLLAR 3-MONTH (8/8)	7.89	7.88	8.54

Sources: Federal Reserve Board, First Boston

# Raw data in the production indicators are seasonally adjusted in computing the BW index (chart); other components (estimated and not listed) include machinery and defense equipme
1 = Western Wood Products Assn. 2 = Southern Forest Products Assn. 3 = Free market value NA = Not available r = revised NM = Not meaningful

Who knows your disability insurance needs best?

BusinessWeek

EDITOR-IN-CHIEF: Stephen B. Shepard
MANAGING EDITOR: John A. Dierdorff
CHIEF ECONOMIST: William Wolman
ASSISTANT MANAGING EDITORS: John Maughan, Mark Morrison, Anthony J. Parisi
ART DIRECTOR: Malcolm Frouman
SENIOR EDITORS: Bob Arnold, Nancy Cardwell, Robert J. Dowling, Stuart Jackson, Richard F. Janssen, Geoff Lewis, Sally Powell, Ciro Scotti, Lee Walczak (Washington), G. David Wallace, Seymour Zucker
EDITORIAL PAGE EDITOR: John E. Pluenneke
CHIEF OF CORRESPONDENTS: Keith G. Felcyn
INTERNATIONAL EDITION EDITOR: Frank J. Comes
SENIOR WRITERS: Anthony Bianco, John A. Byrne, Judith H. Dobrzynski, John Hoerr, Gene G. Marcial, Bruce Nussbaum, John Pearson, Otis Port, Chris Welles, Brenton Welling
ASSOCIATE EDITORS: Duane E. Anderson, Robert Barker, Elizabeth Ehrlich, Marc Frons, William J. Holstein, Jeffrey M. Laderman, William D. Marbach, Mark N. Vamos
DIRECTOR EDITORIAL SYSTEMS & OPERATIONS: Thomas J. Reed
SENIOR SYSTEMS MANAGER: Richard I. Ulman
PICTURE EDITOR: Lawrence Lippmann
ECONOMICS: James C. Cooper (Business Outlook editor), Kathleen Madigan (Assoc.), Karen Pennar (Economics editor), Christopher Farrell (Assoc.), Michael J. Mandel (Assoc.), Gene Koretz (Economic Trends editor), William Glasgall (International)
DEPARTMENT EDITORS: Books: Denise Demong. **Corporate Finance:** Larry Light, David Zigas (Assoc.). **Industries:** Thane Peterson. **Information Management:** Jeffrey Rothfeder. **Information Processing:** John W. Verity. **International Edition:** Elizabeth Weiner. **International News:** Peter Galuszka. **Investment Banking:** Jon Friedman. **Labor:** Aaron Bernstein. **Legal Affairs:** Michele B. Galen. **Marketing:** Christopher Power, Amy Dunkin (Assoc.). **Markets & Investments:** Gary Weiss. **Media:** Susan Duffy. **Money & Banking:** John Meehan. **News:** Harris Collingwood. **People:** Peter Finch. **Personal Business:** Donald H. Dunn. **Science:** Emily T. Smith. **Scoreboards:** Robert Mims. **Telecommunications:** Peter Coy. **Transportation:** Michael Oneal
STAFF EDITORS: Brian Bremner, Deidre A. Depke, Naomi Freundlich, Bruce Hager, Fred F. Jespersen, Mark Landler, Leah J. Nathans, Stanley Reed, Monica Roman, Andrea Rothman, Troy Segal, Suzanne Woolley
ASSISTANT EDITOR: Laura Zinn
COPY EDITORS: Harry Maurer (Deputy chief), Michael Mercurio, Joan Warner (Asst. chiefs), Marc Miller, Jack Robbins, Jim Talbi (Sr. Copy Editors), Tim Belknap, Pam Black, Prudence Crowther, Carl Desens, Hardy Green, Aleta Kaufman, Cynthia McClean, David Pengilly, Malka Percal, Barbara Tierney, Dalia Kandiyoti, Kim Jacobs, Aida Rosario, Rebecca Stead (Researchers)
PRODUCTION COPY EDITORS: Donald Haisband (Chief), Hallberg Hallmundsson, Robert S. Norman, Celine Keating, Karen Leiner, Stephan M. Romanoff
ART: Laura Baer, Steven Taylor (Deputy directors), Jeri Hansen, Eric Rosenberg (Assoc. directors), Pamela Harris, Craig Socia (Asst. directors). **Graphics:** Arthur Eves (Director), Joan Danaher (Deputy director), Rob Doyle (Sr. Illustrator), Laurel Daunis, Ray Vella (Illustrators) **Production:** Mary Lee Schneider (Mgr.), Stephen J. Romeo (Asst. mgr.)
PHOTOS: Sue Bloom (Deputy Picture editor), Scott Miyn (Assoc. Picture editor), Todd James, Anne Murray, Ronnie Weil (Asst. editors) Kathleen Daly (Researcher) Bettina Baudoin (Researcher - Paris) Joan Clark (Traffic), Lawrence Crowe (Librarian)
EDITORIAL OPERATIONS: Albert E. Baker, Richard Balestrino, A. Peter Clem, Yvonne Rodriguez, Claire Worley (Production managers) Thomas R. Dowd, Sharon L. Eng, Fidel Lee, Jose L. Martin, Jane M. Perkinson, Craig Sturgis, Karen Turok, Ilse V. Walton, Nicholas White (Makeup editors), Felix Lindicy (Makeup asst.) Donald C. Pearson (Traffic manager), Dale I. Arnold, Edgardo Torres (Production assts.)
CORRESPONDENTS: Jerome Zukosky (Deputy chief) **Atlanta:** Chuck Hawkins (Mgr.) Walecia Konrad **Boston:** Keith H. Hammonds (Mgr.), Laura Jereski, Gary McWilliams **Chicago:** James E. Ellis (Mgr.), David Greising, Kevin Kelly, Julia Flynn Siler, Lois Therrien **Cleveland:** Zachary Schiller (Mgr.), Maria Mallory, Stephen Phillips **Connecticut:** Todd Vogel (Mgr.), Lisa Driscoll **Dallas:** Wendy Zellner (Mgr.) **Denver:** Sandra D. Atchison (Mgr.), William C. Symonds (Sr. Correspondent) **Detroit:** James B. Treece (Mgr.), David Woodruff **Houston:** Mark Ivey (Mgr.) **Los Angeles:** Ronald Grover (Mgr.), Larry Armstrong (Sr. Correspondent), Kathleen Kerwin, Eric Schine **Miami:** Gail DeGeorge (Mgr.), Antonio N. Fins **Minneapolis-St. Paul:** Russell Mitchell (Mgr.) **Philadelphia:** Joseph Weber (Mgr.) **Pittsburgh:** Gregory L. Miles (Mgr.), Michael Schroeder **San Francisco:** Joan O'C. Hamilton (Mgr.) Richard Brandt Barbara Buell, Robert Hof, Maria Shao **Seattle:** Don Jones Yang (Mgr.) **Washington:** Stephen H. Wildstrom (Sr. News Editor), Stan Crock (News Editor), Amy Borrus, Vicky Cahan, John Carey Paula Dwyer, Dean Foust, Susan Garland, Howard Gleckman, Douglas A. Harbrecht, Bill Javetski, Mark Lewyn, Paul Magnusson, Mike McNamee, Seth Payne, Tim Smart, Catherine Yang **Bonn:** John Templeman (Mgr.), Gail Schares **Brussels:** Jonathan Kapstein (Mgr.) **Hong Kong:** Dinah Lee (Mgr.), Pete Engardio **London:** Richard A. Melcher (Mgr.), Mark Maremont **Mexico City:** Stephen Baker (Mgr.) **Moscow:** Rose Brady (Mgr.) **Paris:** Stewart Toy (Mgr.), Jonathan B. Levine, Blanca Riemer **Rome:** John Rossant (Mgr.) **Sao Paulo:** Jeffrey Ryser (Mgr.) **Tokyo:** Robert Neff (Mgr.), Neil Gross, Ted Holden
EDITORIAL SERVICES: Broadcasting: Ray Hoffman **Business Manager:** Barbara Boynton **Information Services:** Jude Hayes (Director), Judi Crowe (Asst. editor), Dana Gordon, Fred Katzenberg, Jessie Khatami, Rex Long **Public Relations:** Christine Summerson, Josephine Coppola **Reprint Permission:** Vivian J. K. Betton **Systems:** Ron Brayer, Courtenay Eddy

PUBLISHER: John W. Patten
SR. VP, DIRECTOR OF MARKETING: John J. Bedell
SR. VP, OPERATIONS: Gary B. Hopkins
VPs, INTERNATIONAL: Gerd Hinske, Earl S. Moore, Jr.
VP, PLANNING & DEVELOPMENT: Barbara Munder
VP, CIRCULATION: Kitty Carroll Williams
VPs, SALES: Constance E. Bennett (San Francisco), John R. Campbell (Stamford), Charles W. Hennessy (Philadelphia), Irwin Kornfeld (New York), Thomas O. McDonough (Chicago)
DIRECTOR, ADVERTISING BUSINESS: Linda F. Carvalho
DIRECTOR, PRODUCTION: Mario J. Tailuto

Readers Report

HOW JAPAN'S TRADE SURPLUS BATTERS THE U.S.

Alan Blinder dismisses as "hogwash" that "Japan's huge and persistent export surplus with the U. S. is stealing American jobs and forcing us to 'deindustrialize'" ("Why a war mentality about Japan is self-defeating," Economic Viewpoint, July 16). And he urges us to remember that "when the Japanese rig the game to favor exports and discourage imports, they are hurting their consumers and helping ours." And he believes "it is hard to see how Japanese investment in the U. S. has harmed us."

Hogwash indeed! Mr. Blinder is demonstrably wrong on all counts: Japan's persistent surplus is what provides the dollars to buy up critically important high-tech growth industries. American victims of Japan's predatory practices in industries that have been destroyed or injured by strategic targeting and dumping continue to suffer long after the relatively short-term sacrifices made by the Japanese consumers are forgotten.

Jack Avins
Princeton, N. J.

THE WRONG WAY TO RAISE TAXES

All in all, your editorial ("The right way to raise taxes," July 9) sounded like an ad for a do-it-yourself book on how to stay rich on someone else's money—mainly that of the too-long-beleaguered middle class with the cracked backs.

Roberta E. Ferro
Esmond, R. I.

DID THE TAX REFORM ACT BRING DOWN THE S&Ls?

"The real culprit in the thrift debacle" (Economic Viewpoint, July 23) is not deregulation, as proposed by Robert Kuttner. The real culprit is the collapse of the commercial real estate market. And what brought about the collapse of the real estate market? The Tax Reform Act of 1986 pulled the rug out from under investors who used tax incentives granted by Congress, which encouraged real estate investment. When those i centives were yanked out, real esta values plummeted. I know; I lost m shirt.

Larry Stur
Dall

FEAR OF FLYING IN A TWO-ENGINE PLANE

In "How Boeing does it" (The Corpor tion, July 9) the fact was not on mentioned, although it was implied the picture insert, that this 350-passe ger airplane, the Boeing 777, has on two engines. Your readers should b made aware that it is inherently dange ous to fly a two-engine airliner for hou over inhospitable terrain.

Norman Bir
Airline Passengers Associatio
of North Americ
Arlington, V

'TOBACCO GROWING IS NOT SUBSIDIZED'

In response to the letter from J. Ric ard Guest ("Stamp out tobacco sub dies, not vending machines," Reade Report, June 25), I feel the record shou be set straight. Tobacco growing is n subsidized.

Unlike every other commodity pr gram in the U. S., the tobacco suppo program is a self-funding, no-cost-to-th taxpayer, supply-controlled, market-dri en program.

The tobacco program, unlike the s called deficiency-payment, target-pric loan-rate, and import-quota programs, a market-driven program and should considered a model program. Since t proof is in the pudding, everyone shou know that, under the current tobac program, only a very tiny share of tot production (much less than 5%) ends under loan. And the government is n responsible even for this minuscu amount.

Even former Surgeon General Ko and former Health, Education & W fare Secretary Califano admit that t tobacco program, by increasing the pri of leaf, drives up the cost of cigarette thereby lowering consumption.

The tobacco industry has proven th

BUSINESS WEEK
AUGUST 27, 1990 ***3175
ISSN 0007-7135

Published weekly except for one issue in January by McGraw-Hill Inc. Founder, James H. McGraw (1860-1948)
Executive, Editorial, Circulation, and Advertising Offices McGraw-Hill Building, 1221 Avenue of the Americas, New York, N.Y. 10020. Telephone (212) 512-2000. Domestic Telex 127960. International Telex 232365, Cable McGraw-Hill New York, TWX 710-581-4879
U.S. subscription rate $39.95 per year; 2 years, $69.95; 3 years, $94.95. Single copy, $2. Write for rates in other countries.
Business Week Subscriber Services 1-800-635-1200

European Circulation Center, McGraw-Hill House, Maidenhead, Berkshire, England. Telephone (0628) 23431. Telex 848860.
Postmaster: Please send address changes to BUSINESS WEEK, P.O. Box 430, Hightstown, N.J. 08520. Second-class postage paid at New York, N.Y., and at additional mailing offices. Postage paid at Montreal, P.Q. Registration Number 9010. Copyright © 1990 by McGraw-Hill, Inc. All rights reserved. Title registered in U.S. Patent Office.

Officers of McGraw-Hill, Inc.: Joseph L. Dionne, Chairman, President and Chief Executive Officer; Robert N. Landes, Executive Vice President, General Counsel, and Secretary; Harold W. McGraw, III, Executive Vice President; Frank D. Penglase, Senior Vice President, Treasury Operations

PHOTOCOPY PERMISSION: Where necessary, permission is granted by the copyright owner for those registered with the Copyright Clearance Center (CCC), 27 Congress St., Salem, Mass. 01970, to photocopy any article herein for the flat fee of $1.50 per copy of each article. Send payment to the CCC. Copying for other than personal or internal reference use without express permission of McGraw-Hill is prohibited. Address requests for customized bulk reprints to Business Week Reprints, P.O. Box 457, Hightstown, N.J. 08520, or call 609 426-5494. ISSN 0007-7135/90/$

UNUM.
That's who.

- UNUM. You're covered by the nation's leading disability insurer.
- UNUM. You benefit from unequalled risk management and rehabilitation capabilities.
- UNUM. Meeting your benefit needs with disability plans, specialty employee benefits, retirement and long term care plans.

UNUM.

You can count on what we know.

UNUM Life Insurance Company, Portland, Maine 04122 (Retirement products available only through this company). UNUM Life Insurance Company of America, Portland, Maine 04122 (all states except New York). First UNUM Life Insurance Company, Tarrytown, New York 10591 (New York State only).
© 1990 UNUM Life Insurance Company

1-800-634-8026

OOPS!

In your article "Creeping up on the Mario Bros." (Information Processing, July 30) it looks like there is a mistake. The caption says: "Children playing a Sega game"—when they are really using Nintendo control pads. I thought you might want to know.

Pamela Blakely, age 10
Fair Lawn, N. J.

You show two children playing Nintendo. Do you mean to show that Sega isn't "creeping up on the Mario Bros." after all?

Ben Holmgren, 9
Santa Barbara, Calif.

I would like to point out a mistake in your article with the two children playing a video game. The caption says it is a Sega game. This is not true. The controllers are Nintendo control pads. I believe the game they are playing is Blades of Steel. It is the only Nintendo hockey game with graphics that good.

My views on the subject are that if Nintendo doesn't get a better system fast, Sega and NEC Technologies will soon dominate the market. I own a Nintendo, and honestly, it isn't that great.

Jeff Cooper, 11
South Natick, Mass.

P. S. I always read the Technology section, and I really like it.

SAFARI, SO GOOD: COOPER WITH A SEGA GAME

the market-driven, no-net-cost tobacco-support program works. It has helped to make the U. S. tobacco industry competitive worldwide in an increasingly competitive market for world agricultural goods.

Farrell Delman
President
Tobacco Merchants Assn.
Princeton, N. J.

WHY JOHNNY CAN'T READ BUT RICHIE RICH CAN

As a onetime member of the National Center for Education Statistics, I am writing to comment on your report "Spending on schools carries a real payoff for students" (Economic Trends, July 16), which showed that students who went through high schools with low pupil-teacher ratios and better-qualified and better-paid instructors are the ones who earned more in later life.

On the face of the data you provided on the study, this doesn't prove a thing. Students who go to high schools with relatively high expenditures tend to come from families with a tradition of higher education, with higher family incomes, and who can afford to send their children to the top colleges. One hears much of the "cycle of poverty." Students who come from a "cycle of affluence" are going to do better, on the average, in later life.

Their success is aided by low pupil-teacher ratios, et cetera, but that is not the primary reason for their higher earnings.

Robert Calvert Jr.
Garrett Park, Md.

HOW CONGRESS PADLOCKED THE CAPITAL MARKETS

In "The myth that America can't compete" (Innovation, June 15), you minimize the role that the high cost of capital has played in the decline of American manufacturing.

While I agree that managers should quit complaining and learn to become long-term competitors, it's important that your readers become fully aware of the role of our profligate Congress in harming the country's industrial competitiveness. The long decline of interest rates during the 1980s obscures the truth, which is that our industrial might has been crippled by high relative interest rates, and that the government has "crowded out" our corporations from the capital markets.

John A. Lumbard
Hollis, N. H.

THE CLASS OF '40 WAS A CLASS ACT, TOO

The Harvard business school class of 1970 seems to be doing all right ("Class Reunion," Cover Story, June 18). But while these former students were celebrating their 20th reunion, the class of 1940 was celebrating its 50th.

I hope they will follow in our step endow a professorship at their 25th an on the 50th turn over $1 million (to adjusted for 30 years of inflation) as class gift.

I think there is one Class of 1940 re ord that they may not be able to reac At this point, 80% are still married their first wives, and 7% are unrema ried widowers. In those days, we we taught to do the important things rig the first time.

As to job-jumping, almost all of spent time in a brown, blue, or gre uniform, some of us twice.

Robert Kal
Lafayette, Cal

A VOTE OF CONFIDENCE IN GARFINCKEL'S

Your story "First City's deals a falling like dominoes" (Top of t News, July 9) contains a misleading ph to caption: "Garfinckel's in Washingt Abboud may get stuck for most of a $ million loan."

The facts are that, of the total $ million facility, 25% of the funds we put up by a Washington bank. Thu First City was owed only $21 million the time of Garfinckel's Chapter 11 ing, not $28 million, as the article state More important, in spite of the ban ruptcy filing, the prospects for repa ment of this credit in full are excelle In fact, cash collections of $11.6 milli ($8.6 million to First City) have alrea been received.

The facility is secured by all Garfinckel's assets. On the revolvi credit portion of the facility, on $1.8 million remains to be collect and that is secured by current ca receivables of more that three tim that amount. The remainder of the fa lity is secured not only by all Garfinckel's assets, including the sto leases, but it is also backstopped by put agreement to a creditworthy th party.

The bottom line is that First C expects to receive all principal a interest on the Garfinckel's credit fa lity, and we expect that to happen th year. So confident are we of our po tion that the loan remains on performi status.

James E. D
Senior Vice-Preside
First City Bancorporation of Tex
Houst

Letters to the Editor should be sent to Read Report, Business Week, 1221 Avenue of the Am cas, New York, N. Y. 10020. Fax: (212) 512-44 Telex: 12-7960, Intl. 4998204. All letters must clude an address and daytime and evening te phone numbers. We reserve the right to edit lett for clarity and space.

Lower your overhead. Overnight.

The accelerated pace of modern business makes the overnight letter a necessity.

Yet unless you're using our UPS Next Day Air Letter, you're probably paying more than necessary for this necessity.

Our efficiency enables us to deliver overnight for just $9.00—up to 40% less than other companies charge. And only UPS guarantees overnight delivery to every address, coast to coast.*

So if you have an urgent need to send an urgent document, use the UPS Next Day Air Letter. It's one cost-cutting measure guaranteed to work overnight.

We run the tightest ship in the shipping business.

ups®

© 1990 United Parcel Service of America, Inc. *See UPS Air Service Guide for complete guarantee details

Substantial proof th

with power and sp

In the terminology of the modern workplace, power and speed have become the shorthand by which personal computers are measured.

The test of the designer's art, though, is to wring the greatest *performance* out of available megabytes and megahertz.

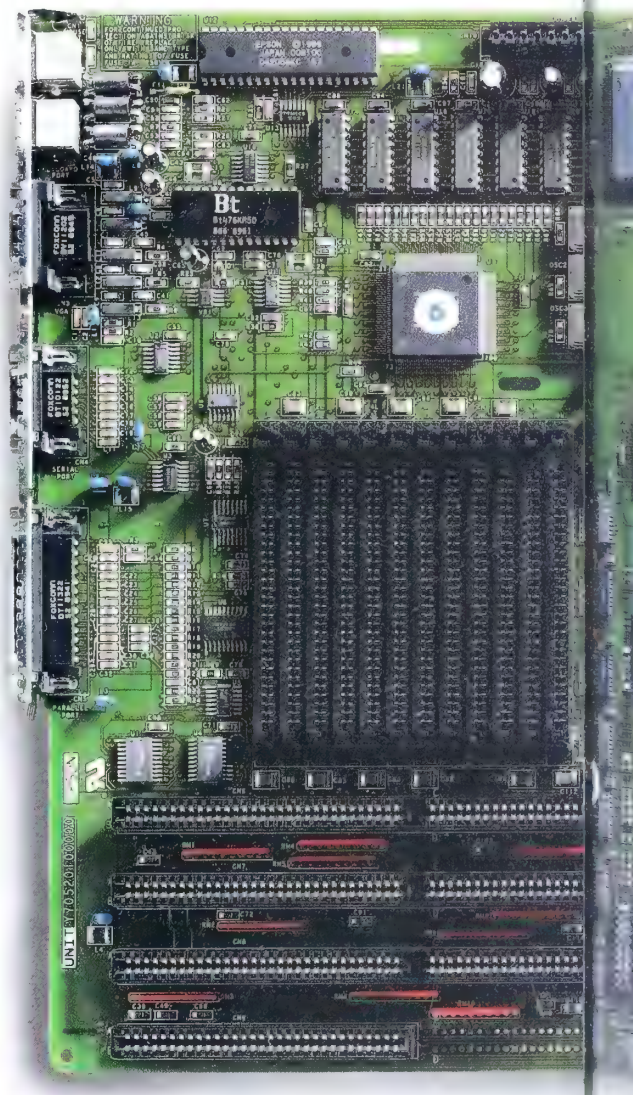
With a disarmingly clean, integrated design, Epson® engineers have done just that in the new 286 and 386™ Series personal computers.

Consider the evidence:

1 *VLSI Chips. The compact footprint of Epson's new machines is made possible by integrating functions on VLSI chips such as these. Without them, separate boards would require separate slots, and the motherboard alone would be three times the size.*

2 *Surface Mount Technology. Used only by the most advanced manufacturers, SMT techniques protect the structural integrity of the board, which increases overall reliability.*

3 *Hard Drive Controller. The use of Integrated Drive Electronics on the hard disk eliminates the need to add a hard disk controller board. This simplified design means faster throughput and greater reliability.*

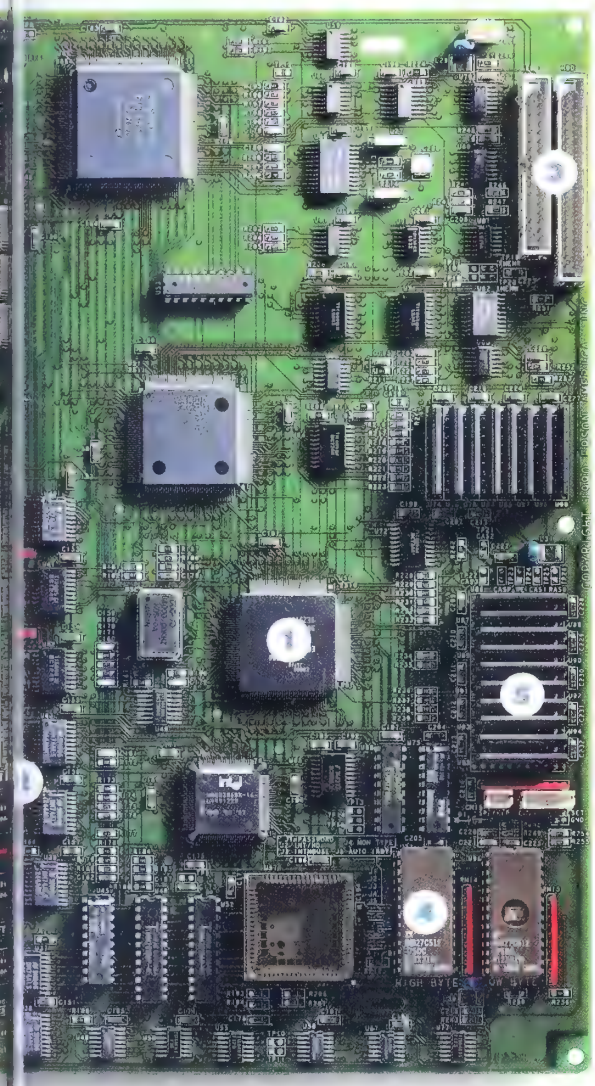


architecture necessary for optimal performance.

Feature configurations may vary with different models. Board shown is not actual size. 386 is a trademark of Intel Corporation. Epson is a registered trademark of Seiko Epson Corporation.

in a world obsessed

l, neatness counts.



Epson's proprietary BIOS. Epson has elected to develop its own BIOS, customized for each individual system, simply to ensure that your software will get the most out of our hardware.

High speed memory. In fact, at 70 nanoseconds, they are among the highest speed memory chips available. With them, memory access is faster. Snap-in SIMMS modules make memory upgrades easy and quick.

Super VGA video graphics are embedded on the motherboard. The result: more efficient data transfer, more reliable circuitry, optimized video performance.

What the Epson design team has discovered is that *less* is very definitely more. By reducing the number of separate components through integration, performance is increased. The result is a flexible tool which is elegant, efficient and allows the effortless application of power and speed to the task at hand.

In fact, there is only one word that adequately describes the innovative design of these new Epson computers. Neat.

Engineered For The Way You Work.℠

EPSON

1990 Epson America, Inc., 2780 Lomita Blvd., Torrance, CA 90505. **(800) 922-8911.**

ROLLER COASTER: THE BANK OF AMERICA AND THE FUTURE OF AMERICAN BANKING
By Moira Johnston
Ticknor & Fields • 417pp • $22.95

THERE WERE NO HEROES AT BANKAMERICA

The race to pluck best-sellers out of executive-suite melodramas puts authors in a quandary: Corporate upheavals rarely end neatly. So do you rush to capitalize on the news, or do you wait for a denouement and more details, then attempt the definitive account?

A few years back, *Fortune* reporter Gary Hector considered the unfolding drama of Bank of America and chose to cut and run. His *Breaking the Bank: The Decline of BankAmerica* hit stores in mid-1988. Two years before, A. W. "Tom" Clausen, who headed the bank from 1971 to 1981, had retaken the corner office from his handpicked successor, Samuel H. Armacost. In early 1988, when Hector's book ended, BofA had suffered three years of losses totaling $1.8 billion.

Few inside players would talk to Hector on the record. Still, he wove a compelling tale of clubby, indecisive managers and a weak board who paid the price in the 1980s for BofA's international lending binge and other missteps in the 1970s. While the bank's outlook was uncertain, Hector judged the glass half empty: "Bank of America appears destined to be acquired," he concluded. "It is hard to imagine the company ever regaining the swagger and dominance that it had prior to 1980."

Oops. Subsequently, Clausen pulled off—or at least presided over—an astonishing turnaround. Based largely on a resurgence in retail operations, BofA's 1989 net income topped $1 billion. When Clausen stepped down last May, there was no lack of swagger in the step.

So much for striking while the iron is hot. Now comes Moira Johnston with *Roller Coaster: The Bank of America and the Future of American Banking.* Johnston, the author of three previous books, including *Takeover*, provides detail Hector didn't. And because her book covers two additional years, the reader rides back up with the chastened bank.

Johnston brings faces and voices to her description of the emotional upheaval that accompanied the bank's overhaul. We meet the farmers BofA pressed to borrow beyond their means, and we feel their pain when the bank pulls out of farm loans. We watch A. P. Giannini's daughter, Claire Giannini Hoffman, become so embittered by the undoing of the institution her father founded in 1904 that she quits the board. We feel the frustration of two would-be raiders, First Interstate Bancorp Chairman Joe Pinola and Wall Street heavyweight Sanford I. Weill, whose bids, in 1985 and 1986 respectively, were treated as jokes by the management and board.

'I should have stood up the day after I came and said, "This is a roaring disaster" '

Samuel H. Armacost
Former BankAmerica CEO

Johnston elicited on-the-record interviews with most of the major players—even fallen CEO Armacost. Previously, Armacost, who yanked the ripcord on a $1.7 million parachute to soften his fall from the bank's carnelian San Francisco tower, hasn't talked. But in 20 hours of interviews, he reveals the stress and ri icule he endured. Tales of his stewar ship, he acknowledges, "tended to po tray Nero fiddling while Rome burned

Johnston casts Clausen as an insecur authoritarian taskmaster—and an arch typal sourpuss to boot. His triumph his return, she argues, was largely matter of timing. Clausen was behir the ladling of money to developing cou tries in the 1970s, for example, but h left for the World Bank before tho bad loans came home to roost—on A macost's watch. Johnston credits Arm cost with recognizing the bank's need cut costs and become more marketin oriented, and with putting in place th people who achieved the turnaround.

Armacost clearly agrees that Clause got a free ride. "I blame myself for or glaring faux pas," he says. should have stood up the da after I came and said, 'This a roaring disaster.' " Bu we're not persuaded that h should have kept his job. H was indecisive, crippled b fears of upsetting BofA's cu ture. Indeed, he spent muc of his tenure assuring th world that setback after se back was an "aberration."

Perhaps because her ta lacks suspense, Johnston o ten tries to wring drama fro embarrassing literary stretc es. She introduces Clausen a "a full-jowled and bespect cled man with the same gr nitic facade as the mighi bank that has been his mi tress for all but five of th last thirty-eight years."

Readers will enjoy *Roll Coaster*'s gritty details ar you-are-there quality. But don't expe revelations. Most disappointing, Joh ston offers little insight into new CE Richard M. Rosenberg. A Wells Fargo Co. veteran who joined BofA in 198 Rosenberg is known for his high energ and marketing savvy, but we still ha no sense of what his strategy will be.

While Gary Hector was bold—wrong—in his predictions about Bof Johnston's meandering stab at what next for American banking amounts little more than a wagging finger war ing of trouble ahead. It's no secret th we need smarter bankers and smart regulators. Beyond that, *Roller Coaste* for all its rich description of this instit tion's flirtation with ruin, never delive on its promise to tell us what's arour the bend.

BY JOAN O'C. HAMILTO

Hamilton is BUSINESS WEEK's San Fra cisco bureau manager.

"ROCK THE BOAT."

Dan Daly
Chemist
Texaco Research Center

"At Texaco, we're free to rock the boat. To go with an unconventional idea when only a few can see the potential. One of those ideas resulted in a major development in gasoline technology."

Dan Daly is a research chemist at the Texaco Research Center in Beacon, N.Y. He's a member of the special team that developed Texaco's System^3 gasoline.

The challenge: To clean up deposits in the intake systems of today's high-tech engines.

"We could have used a pre-existing additive package. That would have kept us at par with the current technology in the industry. But we chose to go beyond that. To be innovative, even if it did mean taking a risk."

The result: A remarkable system of gasolines that keep new cars running like new and can help restore performance to older cars. In fact, in the BMW test run on each of the six leading national gasolines, only System^3 removed deposits on dirty intake valves.

This new generation of fuels has met with strong consumer acceptance.

"It's exhilarating to know you've developed something that can improve car performance."

Right, Dan. Because your team made waves, we made a better product for our customers.

Star of the American Road

TEXACO – WE'VE GOT THE ENERGY.

SADDAM'S STAR HOSTAGES: BUSH AND THE ECONOMY

BY PAUL CRAIG ROBERTS

The longer the Gulf Crisis drags on, the more it will sap the already depleted resources of a U.S. economy teetering on recession. But success in Iraq would renew Bush's power against his foes —both domestic and foreign

Just when we thought our biggest problem was the budget deficit, Saddam Hussein has seized a country that ranks as one of our vital interests.

President Bush has declared that the conquest of Kuwait "will not stand" and is committed to dislodging Saddam with an embargo. No one is to sell anything to Iraq or to buy any oil from it. To make it possible for the Saudis to cooperate in the embargo, Bush achieved a first and got permission to load their bases with U. S. air power.

If Bush is to prevail, Saddam must be brought down quickly. Managing a world embargo is tougher than holding together an oil cartel. Keeping 20% of OPEC output off the market is costly, and there are many incentives to cheat. Policing the agreement will strain the alliance. Our new Soviet friends have no less of a stake in higher oil prices than Iraq. Germany's political imperative is to absorb its eastern part, a feat that oil recession would make more difficult. Others will be tempted to hedge their bets, and Arab prevarications and terrorist acts will help to wear down the West's resolve.

If the crisis drags on, Western politicians, especially Bush and Thatcher, may find their political energies sapped by domestic demands. Both economies are close to recession, and an oil shock could bring one on. In the U. S., the unemployment rate is up, factory orders are down, and financial problems seem to be spreading. The combination of policy mistakes and the government's insistence that fraud is the basis of the S&L crisis has made it impossible for the government to find buyers for its growing real estate holdings, thus increasing the costs and frustrations of the bailout. Last year's S&L legislation, which Bush said would "safeguard and stabilize America's financial system," has instead spread real-estate-based failures into the commercial banking system, depleting the federal deposit insurance fund. Declining real estate values, rising tax burdens, and broken political promises are draining consumers and investors of confidence.

These blows are falling on an economy that is being suffocated with burgeoning regulatory costs in the name of clean air, the handicapped, and civil rights quotas, and in which Federal Reserve policy has left no margin for error.

On top of all this, Saddam threatens an oil shock that would be accentuated by a lengthy embargo. Higher oil prices combined with recession could lead to higher interest rates if financial markets believe that central banks will pay oil bills with inflated currency, as they did in the 1970s.

A protracted crisis would send the d icit higher, and Bush's economic tea which has already been stampeded in political mistakes by the budget defic could become totally demoralized. Co gress responded to Bush's offer of "t revenue increases" by funding eight a propriations bills by a total of $41 billi (11.4%) above current levels—there spending in advance the "tax solutio that now seems to be unlikely. And the crisis results in serious military tion, the sky is the limit on the size the deficit.

A lengthy involvement would also low opposition parties, thirsty for pow to find political opportunities in the c sis. Already, the Democrats are atta ing the oil companies for raising ga line prices. When politicians want raise prices with a tax, it is called co servation; when companies anticipa dwindling oil flows and act according it is called exploitation. Soon, America will be angrier at America's oil comp nies than they are at Iraq. Moreov Bush's call for conservation without price rise means rationing, which wou wear out the public's patience.

TOUCHING A CHORD. Bush demands t restoration of "the legitimate gove ment of Kuwait" and says we won't cept "a puppet regime imposed fr outside." But many Arabs view the r ing families as U. S. puppets. Sadda has touched a chord with poor Ara and pan-Arabic youth who have lit sympathy with the ruling elites a want to see the oil power used to bett the lot of the ordinary Arabs and humble the industrial powers. Ma sense that the militarily and politica weak oil kingdoms are a historical ano aly and that under Saddam, the Mid East would carry far more clout—a respect. It is Arab public opinion th makes it difficult for friendly Arab le ers to cooperate with Bush.

If Bush prevails, the conqueror Saddam Hussein would be able to wh House Speaker Thomas S. Foley a Senate Majority Leader George J. Mit ell into line and overcome the budg impasse without an income tax increa But a stalemate would leave Bush c on a limb, and the inevitable dissensi would saw it off.

Saddam has challenged more than t price of gasoline, the independence the oil kingdoms, and our stomach f defending our vital interests. At sta are the renewed U. S. confidence and fluence achieved in the 1980s as t economy prospered and communism c lapsed. If Saddam prevails, Bush, t U. S. economy, and our strategic a ances in the Atlantic and the Pacific w suffer the consequences.

PAUL CRAIG ROBERTS IS CHAIRMAN OF THE INSTITUTE FOR POLITICAL ECONOMY IN WASHINGTON

Gold. Rush.

In just four months, more than 2 million people put *AT&T Universal Cards* in their pockets. If you're not one of them, call now. Because the real rush is about to begin.

A GOLDEN OPPORTUNITY. The newest *AT&T Universal Card*—Gold MasterCard®—is free. Just use it for a purchase once a year and there's no annual fee for life for 1990 Charter Members.

LONG DISTANCE DISCOUNTS. The new gold *AT&T Universal Card* gives you 10% off the already competitive AT&T Long Distance Calling Card rates.

UNIVERSAL ACCEPTANCE. It's accepted at more than 8 million locations worldwide. So you can use it to shop, dine, play, travel and phone, just about anywhere you go.

UNIVERSAL SATISFACTION. *AT&T Universal Card* service is unique simply because no one understands customer service better than AT&T.

The *AT&T Universal Card*. All the benefits of AT&T worldwide connections and service, plus the purchasing power of a gold MasterCard card. To apply, call toll-free: 1 800 662-7759.

One World. One Card.℠

© 1990 AT&T

Universal Bank, Columbus, GA

Why it's important to establish a National E

A "SHORT-TERM" PROBLEM WILL TAKE DECADES AND COST BILLIONS.

Alarmed by the poisoning of our environment at Love Canal and other toxic waste sites, Congress created the Superfund program ten years ago. Superfund was intended to be a short-term cleanup program for the most serious hazardous waste sites across the country.

More than a decade later, it's painfully clear that cleaning up hazardous waste is not a short-term problem for America. It will take many decades and cost hundreds of billions of dollars.

Currently, 1,200 of the most dangerous sites have been selected for priority action. Billions of dollars have been spent, but very few sites have been cleaned up. In fact, only 45.

SO FAR, ABOUT ALL WE'VE DONE WITH HAZARDOUS WASTE IS WASTE TIME AND MONEY.

One problem is that Superfund requires establishing liability–who sent what waste, how much and where. And this has taken priority over cleaning up. With the cost of cleanup at just one site estimated as high as one hundred million dollars, the question of who pays has serious consequences for everyone involved.

At most hazardous waste sites, the operator of the dump caused the environmental harm. But under Superfund,

everyone who used the site is liable for the cleanup bill. The record of users can go back 25, 30 or 40 years and can number in the hundreds. Users can include major corporations, small businesses, local governments, hospitals, nursing homes, schools, even individuals.

For example, at 422 sites almost 14,000 entities have been notified by the government that they could be liable for the cleanup cost. And many of these entities have themselves identified still others.

The result? A bonanza for lawyers and

ut cleanup first and ronmental Trust Fund.

:onsultants. And a tragedy for the :nvironment. At some sites, as much as ;0% of the money spent goes toward legal :xpenses in costly and time-consuming :fforts to assign liability instead of solving he cleanup problem. An avalanche of law-uits has resulted, all aimed at getting omeone else to pay.

HERE'S AN IDEA THAT DESERVES EVERYONE'S CONSIDERATION.

At AIG, we think it's high time to find a ›etter approach to the problem of cleaning ıp old hazardous waste sites. One that :ncourages prompt cleanup and spreads he cost more broadly. And more equitably.

We propose creating a National :nvironmental Trust Fund similar to the Jational Highway Trust Fund. Its esources would be used exclusively for :leaning up old hazardous waste sites. 'he Fund could be financed by adding a eparate fee to commercial and industrial nsurance premiums in the United States.

Even a modest assessment, say 2% of pre-niums and an equivalent amount for self nsurers, would provide about $40 billion ›ver the next decade, more than enough to leal with the 1,200 highest-priority sites.

A national advisory board of private cit-zens, industry and public officials could ›e charged with overseeing the program. Ve also suggest giving consideration to :stablishing local technical monitoring :ommittees in each community. These groups would be composed of local cit-izens, industry and others who would work with the Environmental Protection Agency and the state on the particular cleanup site, from the very beginning of the cleanup effort.

Just think. A new way to finance Superfund's mission without the need for new taxes, a new government agency or expensive and unproductive lawsuits.

WHY IS AIG RUNNING ADS LIKE THIS?

AIG (American International Group) is the largest underwriter of commercial and industrial insurance in America, and the leading U.S.-based international insurance organization. The nature of our business means we deal every day with issues affecting U.S. competitiveness and the future of the world economy.

We've started this dialogue to encourage people like you to help shape the future. Perhaps you'll want to keep the ball rolling by contacting your elected officials, or an environmental or trade group. We hope you will. Shouldn't we stop trying to fix the blame and start fixing the problem?

If you agree with this idea or have thoughts of your own to share, write to Mr. M.R. Greenberg, Chairman, AIG, 70 Pine Street, New York, NY 10270.

AIG World leaders in insurance and financial services.

BY GENE KORETZ

THE U.S. HAS THE MOST TO LOSE FROM SURGING OIL PRICES

The conventional wisdom is that the U. S. is far less vulnerable to a sustained rise in oil prices than its major industrial rivals such as Germany and Japan. After all, the U. S. still produces 50% of its oil needs, whereas both Japan and Germany import more than 96% of their oil. Moreover, both Japan and Germany rely on oil for more of their energy needs than does the U. S.

Nonetheless, economist Catherine McDonough of Merrill Lynch Capital Markets Inc. argues that the U. S. is likely to be more hurt by an oil shock than its trading partners. While all countries would experience higher inflation and slower growth if oil prices took off, she says, "the U. S. economy would be at greater risk."

For one thing, the U. S. is an energy glutton—consuming about 2.5 times as much fossil fuel per unit of output as Japan and 1.7 times as much as most European countries. "That means the negative effects of higher energy prices on economic growth would be the greatest for the U. S.," says McDonough.

Further, high taxes have made oil-product prices much higher in other countries, so any given rise in oil prices would have a stronger inflationary effect in the U. S. than abroad. And the greater strength of the Japanese and German economies implies that the two nations have more room than the U. S. to raise interest rates to limit the inflationary impact of rising oil prices without risking a downturn. If the dollar falls as a result, foreign nations could also benefit because oil is priced in dollars.

"Only if the oil shock involves supply disruptions rather than price increases would the U. S. be in better shape than its trading partners," says McDonough.

THE 'ECHO BOOMERS' ARE BRINGING MORE CRIME TO U.S. CITIES

A recent increase in violent crimes in large cities may be only a portent of things to come, say two crime scholars. Contributing to the surge, they argue, is a demographic tide: the large population cohort of children born to baby boomers that is entering its crime-prone teenage years.

In a 1978 book, James A. Fox, a criminologist at Northeastern University in Boston, predicted that crime would decline in the 1980s as baby boomers grew out of the 14-to-21 age bracket—prime years for violent crimes—and were replaced by the baby bust generation. That happened: Crime rates for homicides and robberies fell in the 1980s as the 14-to-21-year-old male population shrank by more than 3 million.

Now, however, Fox notes that the echo boomers—those born after 1976 when the number of births began to rise after a long decline—are coming into the high-crime years. That process, he says, is further along in cities with large black and Hispanic populations, which tend to have children at earlier ages. But the total number of males 14-to-21 years old, he warns, will grow by more than 1 million in the current decade.

Indeed, Alfred Blumstein, dean of urban and public affairs at Carnegie Mellon University, thinks that today's crop of teenagers is likely to be more crime-prone because of rising poverty and family dissolution. Since the early 1980s, he notes, some 20% of children have lived in poverty—a factor that "will start working against us in the 1990s."

One straw in the wind: The FBI recently reported that the number of under-18s arrested on homicide charges rose by 67% from 1985 to 1989, compared with a 12% increase for those 18 and over.

By Elizabeth Ehrlich in New York

SOME JOB NUMBERS HAVE STARTED FLASHING A RED ALERT . . .

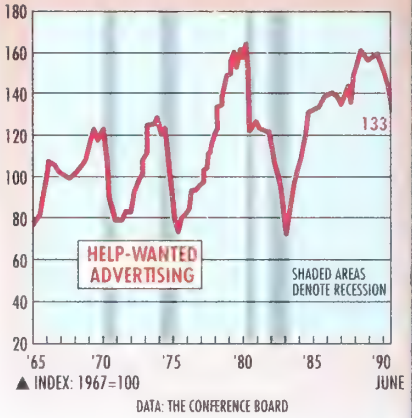
As if July's jump in the jobless rate weren't enough, a new rash of employment statistics is underscoring growing weakness in labor markets. Perhaps the most worrisome is the decline in help-wanted advertising volume in the nation's major newspapers. The Conference Board's help-wanted advertising index hit 133 in June—its lowest reading since 1984 (chart).

"Help-wanted advertising is one of the more reliable leading indicators of economic downturns," says economist Maury N. Harris of PaineWebber Inc. "And it's flashing red signals at the moment."

Although the help-wanted index has occasionally dipped a bit in the past without being followed by a recession, Harris notes that those false signals were modest compared with the index' 17.4% slide since its 161 peak in late 1988. "In the past 40 years," he says, "help-wanted advertising has never fallen this much outside of a recession."

Meanwhile, DRI/McGraw-Hill notes sharp disparity between the rates of employment growth shown by the federal survey of establishments and the payroll employment numbers released by individual states. In the 12 months ending in May (the latest month for which state numbers are available), total payroll job growth counted by the states came to 1.9 million, or 1.7%, compared with the federal estimate of 2.5 million, or 2.3%.

A RECESSIONARY SIGNAL IN THE CLASSIFIED ADS



What's more, the disparity has recently widened. While the federal count still shows a 1.7% rise in payroll jobs between February and May, the states report a 0.1% decline. And the state numbers also suggest that economic malaise is spreading across the nation. Some 3[illegible] states said they suffered job losses since February, the most for a three-month span since 1982.

. . . BUT UNEMPLOYMENT CLAIMS ARE CAUSING NO ALARM

If there's a glimmer of hope in the current ominous cloud of labor market statistics, it lies in the behavior of initial unemployment insurance claims. Economist Robert L. Marks of Siff, Oakley & Marks Inc. points out that this series has been essentially flat for the past 1[illegible] months—averaging around 350,000 a week. "That's well below the range prevailing prior to and during the 1985-8[illegible] slowdown, which did not result in a recession," he says.

Marks notes that the number of people receiving unemployment insurance, while rising, is also below the levels of 1985-86. "Until weekly jobless claims pierce the 400,000 mark and stay there for a while," he says, "it's premature to talk about the onset of recession."

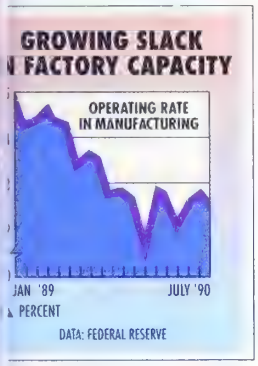
JGUST 27, 1990

BY JAMES C. COOPER AND KATHLEEN MADIGAN

WHY THE JOLT FROM IRAQ WON'T ROUSE INFLATION

Are higher oil prices deflationary? That might not be as strange as it sounds. Clearly, the 1990 oil shock will send producer and consumer prices ;yward in August and September. But it will also be a ımmer blow to a weak economy, and that will help to ıoke off any new round of inflation before it becomes nbedded in economic activity.

The full impact of the shock can't be gauged yet, ecause most of the data still cover July. The latest ımbers from the retail and industrial sectors only con- rm that the economy was in trouble even before the iddle East crisis erupted in early August.



In July, there were signs that weakness in retail buying had already begun to hit manufacturing. Output in U. S. factories, mines, and utilities had posted some healthy gains this spring, led by higher auto production. But last month's industrial output was flat, and factory production fell 0.1%.

Growing slack in the factory sector also shows up in capacity ;ilization. Manufacturers operated at only 82.6% of ıeir capabilities in July, continuing the downtrend of ıe past year and a half (chart). With orders certain to) nowhere in coming months, capacity should loosen up ren more—a big factor that will allow price pressures the goods-producing sector to ease further.

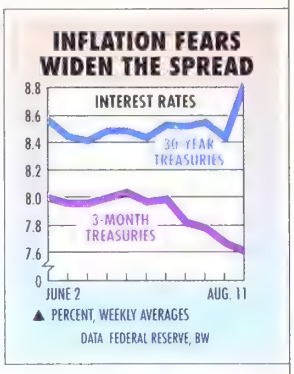
Now, forecasters are scaling back their projections for rowth in the second half—and with good reason. At $26 er barrel, America's bill for foreign oil increases by bout $30 billion annually. By the time that lost income ts consumer and business spending, growth in real ross national product will be shaved by 0.5 to 1 percent- ge point, according to most econometric estimates. hat's enough to throttle this economy from slow rowth to no growth.

THE FED WILL HAVE TO LET RATES FALL

With business so depressed, an oil-fueled surge in inflation can't get off the ground, particularly with the labor markets now weakening. Wages are likely to e slowing as the new year begins. Consumers will have ss income to spend on nonenergy purchases. And busi- esses will find it difficult to raise prices enough to fset their higher energy bills.

That further depresses the outlook for profits, which e already in a 1½-year decline. Swallowing those higher fuel costs will squeeze margins further, and growing weakness in demand will hit sales volume. That means businesses will have to make offsetting cost cuts, mainly by paring their payrolls. The continued unwinding of labor-market pressures will be a big force restraining inflation in 1991.

The Federal Reserve Board will have to take all this into account at its Aug. 21 policy meeting. The argument that the Fed will ease soon seems compelling, but higher oil prices have created a touchy dilemma for the central bank: It might not be able to loosen credit without fueling the bond market's fears of inflation and causing further deterioration in the foreign-exchange value of the dollar. Long-term interest rates have already shot up, even though short-term rates have declined (chart).



However, the bond market seems out of touch with economic realities. The outlook for nonenergy inflation is looking better, and so long as there's no shooting war in the Middle East, market conditions simply don't support the current price of oil. Indeed, the U. S. is near recession. The world economy is slowing down. Oil reserves are plentiful. Other countries are offsetting the loss of oil from Iraq and Kuwait. And Saddam Hussein's options are shrinking.

For investors, the message is clear: The Fed will eventually cut rates, probably when bond traders become better focused on market fundamentals. That means long-term interest rates are likely to head lower. By yearend, current bond yields may look like a steal.

OIL WILL FUEL THE PRICE INDEXES...

The Fed could have taken solace in the July report on producer prices. But the spike in oil prices in early August made those data old news even before they came out. The July numbers, however, do indicate that—oil notwithstanding—the inflation outlook is improving.

In July, producer prices of finished goods fell 0.1%, with little price movement in any of the major categories. Since January, prices of finished goods have gone nowhere, and, excluding food and energy, prices are up at just a 3.2% annual rate.

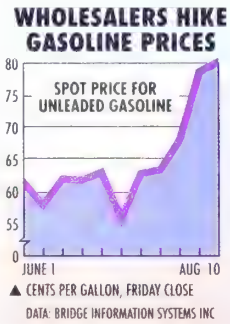
Gasoline prices actually dropped 5.3% in July, a decline that will be more than reversed when the August data are released on Sept. 14. Already, the wholesale charge for fuel oil has gained 29% in the past month. And the

wholesale price of unleaded regular gasoline has soared by 27.6% from mid-July to mid-August (chart).

These jumps suggest that energy products could add as much as two percentage points to the wholesale rate of inflation for August. And consumer prices, after behaving modestly in July, will also heat up this month, with higher energy prices probably adding about half a percentage point. Price hikes for crude oil in the futures market indicate that energy prices at the producer and consumer levels will increase again in September.

...BUT INFLATION ELSEWHERE IS EASING

But once the oil shock has hit, monthly gains in prices, especially at the producer level, should fall back to the more modest pace prevalent for much of this year. Even before costlier oil, weak demand for consumer goods was forcing wholesalers to hold the line on price increases for home furnishings, appliances, most types of clothing, and new cars. And items such as home electronics, dishes and flatware, and tires are actually cheaper than they were a year ago.



The slumping manufacturing and construction sectors are also contributing to the slower pace of wholesale inflation. Capital equipment prices have risen just 3.2% over the past year. And the cost of building supplies is up by a small 1.1%.

Moreover, companies see little pickup in demand and so have held back on orders of materials needed to manufacture their products. That's leading to price cuts for some crude materials and intermediate supplies that have undergone some processing.

In July, prices of intermediate supplies and materials, excluding food and energy, rose just 0.1% and are no higher than they were a year ago. Crude materials, also excluding food and energy, rose 0.9% in July, following a 0.6% drop in June. Over the past 12 months, raw material costs are up just 1.6%.

When consumers and businesses have to devote more of their budgets to fuel, they have less to spend on other goods. Demand is already flagging, and a further slowdown in nonoil spending means that businesses will have to hold the line on prices if they are to move their goods out of retail stores. That's how more expensive oil becomes deflationary.

CONSUMERS ARE DOWN IN THE DUMPS

Retailers are having a tough enough time as it is. Retail sales rose a scant 0.1% in July, to $149.5 billion. Although the June increase was revised substantially higher from 0.5% to 1.1%, the trend of retail buying is going nowhere. Sales are below where they were in January and after adjusting for retail prices, real volume is worse than a year ago.

Talk of recession amid surging oil prices will undoubtedly dim consumers' optimism even more. Consumer confidence was already headed lower in July. The August data for retail sales will be a good indicator of the staying power of consumer spending. Car sales began the month on a weak note. They came in at an annual rate of only 6.6 million, compared with July's 7.1 million pace. Such big-ticket purchases are the first items consumers are likely to postpone in an increasingly uncertain economy.

If car sales stay weak, Detroit seems headed for yet another inventory imbalance. Carmakers have planned to produce at a 7.5 million rate this quarter. Production cutbacks in the fourth quarter seem likely, and these will only add to the economy's woes. With economic weakness so pervasive, today's concerns about inflation stemming from the August spike in oil prices might well prove to be wasted worry by New Year's Day.

THE WEEK AHEAD

FEDERAL BUDGET

Tuesday, Aug. 21, 2 p.m.

The federal government will probably post a $27 billion deficit for July, according to the consensus of economists surveyed by MMS International, a division of McGraw-Hill Inc. The U.S. budget was $18.2 billion in the red in July, 1989. This year, sagging corporate tax receipts and an unexpected surge in outlays, especially for the bailout of savings and loan associations, are hammering the federal budget. With just two months left in fiscal 1990, the government is on track to post a deficit in excess of $215 billion. For now, the gulf crisis has shifted Washington's attention away from cutting the budget, suggesting that next year's deficit will not be pared by much. And a recession could push it higher.

DURABLE GOODS ORDERS

Thursday, Aug. 23, 8:30 a.m.

Orders taken by durable goods manufacturers likely edged up by about 1% in July, after falling 2.8% in June. An increase in auto demand will probably account for much of the rise. Still, orders have gone basically nowhere this year, indicating that the factory sector remains less of a support to the expansion.

GROSS NATIONAL PRODUCT (REVISION)

Friday, Aug. 24, 8:30 a.m.

The MMS consensus calls for little change in the second-quarter GNP growth rate from its previously reported rise of 1.2%, at an annual rate. Even the survey's highest forecast of 1.5% would still put growth below the 1.7% pace of the first quarter. An upward revision to consumer spending, as suggested by the June refiguring of retail sales, will be offset by a downward shift in second-quarter inventories. Economists also expect little revision to last quarter's 4.4% advance in the implicit price deflator.

CORPORATE PROFITS

Friday, Aug. 24, 8:30 a.m.

Profits after taxes in the second quarter were virtually unchanged from the first quarter, when they eked out a weak 0.5% gain. The expected lackluster performance would place corporate earnings some 4% below year-ago levels.

Canon Laser Class.™

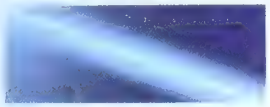
Buy a Canon Laser Class fax and it could be the last fax you'll buy for a long time.

That's because a Laser Class fax has features that won't soon be outmoded. They actually keep pace with expanding needs.

Like the memory capacity of our new FAX-L770. As your fax network expands, the L770 can expand its capacities, too, allowing greater volumes to be received into memory or stored for transmission.

Laser Precision on Plain Paper.

Canon is the market leader in plain paper fax. And the L770 uses a laser process to print images on plain paper. Because of laser printing, they're faithful to the original.

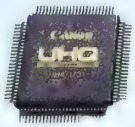


Faxes look better, last longer, and won't curl or fade like thermal paper. And you won't have to copy them before filing.

A Better Image, Sending and Receiving.

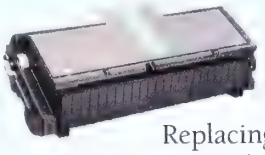
The L770 can improve an incoming image. An exclusive feature called Hyper-Smoothing actually compensates for the image quality of an incoming fax. So the images you receive are clearer, without the fuzzy edges that can make reading text difficult.

And with Canon's UHQ imaging technology, the images you send are better, too. Even combinations of small type and halftones are virtually indistinguishable from their original.



Built-In Reliability.

The L770 is also designed to be more reliable than other plain paper laser facsimiles. Canon's exclusive cartridge system stores everything that can run out or wear out in one neat disposable unit. Replacing them is as easy as popping in a new cartridge.*



The Canon Laser Class FAX-L770. After a few minutes you'll be glad you bought it. After a few years you'll be ecstatic. For information, call 1-800-OK CANON.

The only thing not built into our laser facsimile is obsolescence.

Canon
LASER CLASS
FAX-L770

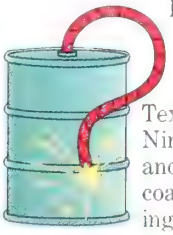
1989 "Manufacturer of the Year"
Awarded by National Office Machine Dealers Association to Canon USA, Inc. for outstanding dealer support

*Cartridge sold separately

COVER STORY

THE VISE TIGHTENS ON IRAQ

BUT HOW WELL WILL THE EMBARGO WORK—AND HOW SOON?



His buddies aboard the USS Independence call him Chief. He's a blunt-talking, broad-smiling Texan who served on the Nimitz off Beirut in 1984 and two years later off the coast of Libya. Now, looking across the windy flight deck toward the mouth of the Persian Gulf, those episodes seem like small scrapes. "This," says the 16-year Navy veteran, "is going to be the big one."

So it's proving to be. In a week's time, the stakes in the Persian Gulf have grown to enormous proportions for the U. S. and its allies. From the gulf's blue waters to the 115-degree sands of Saudi Arabia, where a U. S. troop plane was landing every 10 minutes, prospects for a permanent U. S. military presence in the Mideast are building faster than almost anyone can keep track. It's a moving target, but the Pentagon now allows as how the U. S. eventually may have a quarter of a million soldiers and sailors in the region—at a monthly cost as high as $2 billion. President Bush even may call up the reserves.

Just as fast, the confrontation over Iraq's seizure of Kuwait has turned personal. It's now clear George Bush wants to direct the full brunt of the allied force toward no less than the demise of Iraq's leader, Saddam Hussein. Speaking on Aug. 15 at the Pentagon, the President declared: "Our jobs, our way of life, our own freedom, and the freedom of friendly countries around the world would all suffer if control of the world's great oil reserves fell into the hands of that one man, Saddam Hussein."

More than his own political career, Bush has staked the mantle of American world leadership on the outcome. And he is determinedly dragging the allies fully into the battle, leaning on them for add ed leverage as he attempts to turn giant vise on Iraq. Squeezing as hard a he can, hoping the Iraqis crack, Bus has mobilized an assortment of diplomat ic, economic, and military weapons no seen since World War II.

BUYING TIME. Saddam, a calculating lead er who waged an eight-year war agains Iran, couldn't have known what he wa in for. And as the allied buildup force him to take the precise measure of hi miscalculation, he began looking desper ate. On Aug. 14, Saddam suddenly is sued peace proposals, starting with surprise offer to archenemy Iran to re turn land and prisoners captured during the war. And he hoped that a mission b Jordan's King Hussein would convinc Bush that talks under the direction o the U. N. should be used to end the im passe—thus buying him time.

It is time—and whether Bush or Sad

END RUN: AN IRAQI FUEL TRUCK CROSSES THE BORDER INTO JORDAN

.m succeeds in bending it to
s end—that will decide this
.ttle. The pain of hunger in
aq, if kept in a near-perfect
ıarantine by Bush's block-
.e, may become a fact of
e, even if the nation is able
shift its diet toward more
ımegrown foodstuffs and
vay from imported grains.
ıt Saddam, who had the
ɔmach to release poison gas
er Iraq's own Kurdish mi-
ırity, is unlikely to flinch. So
ısh is hoping that a sharp
cline in Iraqi living stan-
rds will build an irresistible
pular outcry against Sad-
.m—or lead disaffected col-
ıgues to topple him. Yet
merican officials concede
at won't be easy. "Starva-
ɔn," worries a senior U. S.
ɔlomat in the gulf, "is sim-
y not an effective weapon."

And the longer Iraq holds out—talk-
g, bluffing, stalling, hedging, issuing
oposals, and by all means avoiding ac-
al combat—the better Saddam's
ances become. For even as the vise
ghtens, Saddam's tormentors are feel-
g the squeeze, too. Western financial
arkets continue to suffer (page 30), the
ice of oil has risen sharply, grain ex-
ırters from Calgary to Sydney are
rambling for new markets, and con-
actors, who were rebuilding war-torn
aq, are headed home—if they can. Nor
public opinion, with the U. S. economy
the edge of recession, sure to contin-
buoying Bush.

XED OPINION. Perhaps more important
opinion abroad. For Bush's effort to
oke Iraq depends squarely on the co-
ɔeration of America's European allies
ıd the Japanese. Although they unani-
ously supported the U. N. Security
ɔuncil's sanctions against Iraq, and
ıme eight nations have dispatched 50
ıips, the allies are divided about how
r to go in enforcing the embargo. Led
the French, several nations argued
at the U. N. declaration did not permit
tual boarding and inspection of cargo
ssels.

If Bush were to cast aside some crafti-
whittled olive branch held out by Sad-
ım, European support for the Presi-

U.S. WARSHIP IN THE ARABIAN GULF: PLAYING A LONG SHOT, JORDAN'S KING HUSSEIN FLEW TO SEE BUSH

dent could quickly weaken. Yet that's a risk Bush is plainly willing to run. The White House says Bush will categorically reject any peace initiatives from Iraq that "impose a new status quo" in the Mideast—a phrase Administration officials later explained meant any proposal that would leave Saddam in power.

Backing up Bush's tough talk was a relentlessly growing military might. On the ground, about 60,000 U. S. combat troops already had made their way to guard the oil fields of Saudi Arabia. Joining them were relatively small numbers of troops from Egypt, Syria, Morocco, and Pakistan. The multinational force helps Bush and his moderate Arab allies put a Moslem face on the operation.

An allied armada established an all-but-leakproof embargo on shipments of Iraqi oil, with the U. S. and Britain "interdicting" all shipping to and from Kuwaiti and Iraqi ports in the Persian Gulf. That, along with the Turkish and Saudi decisions to close the tap on Iraqi pipelines leading to ports at Yumurtalik and Yanbu, has wiped out the means by which Iraq earns nearly all the hard currency it uses to pay for imports.

Just prior to its invasion of Kuwait, Baghdad had been relying on imports for about 70% of its needs, according to Agriculture Dept. analyst Christopher E. Goldthwait. Iraq now has a two- or three-month supply of wheat, including the country's new crop that is just starting to be brought in. As the Iraqis need grain in coming months, they will have trouble securing new shipments, in part because their overseas assets are frozen. They already owe foreigners $60 billion, and they won't be generating cash from oil exports.

Unlike President Jimmy Carter's 1980 embargo of Soviet grain, which fizzled

A HERO TO THE HAVE-NOTS: SADDAM HUSSEIN HAS WIDESPREAD SUPPORT IN JORDAN AND OTHER OIL-POOR ARAB NATIONS

because the U. S. acted unilaterally, virtually all major grain-producing nations have signed on against Iraq. And even if a big grain exporter such as Canada or Australia were to buck the trend, limited shipping access to Iraq and Kuwait means interception efforts would probably succeed. "Iraq is a country that is easier than most others to cordon off," notes Bernard Steinweg, senior vice-president of Continental Grain Co., one of the world's top grain shippers.

The question is, how much time will it take for economic hardship to produce internal challenges to Saddam? On the surface, the Iraqi leader appears to have total control of his people. He has ruthlessly purged generals and other political figures who might one day challenge him. Yet some experts believe he can be broken. "The possibility exists of what the regime was afraid of—a Romanian-like situation," says Laurie Mylroie, a fellow at Harvard University's Center for Middle East Studies. "It could be a big riot, with people so fed up, frustrated, and angry that they burn half of Baghdad."

With its old foe Iran on the east not yet persuaded to bury the hatchet, and Turkey and Syria lined up against it, Iraq thus is left with one major link to the world beyond: Jordan, and its overland route to the Red Sea port of Aqaba (map, page 23). From Aqaba, it might import almost all of its needs, including rice from perhaps India or Vietnam. Bush threatened to blockade Aqaba if Jordan did not respect the U. N.'s sanctions. King Hussein, a longtime U. S. ally, might be willing, except that ending trade with Iraq would cripple his economy. What's more, in a nation with a huge Palestinian population, Saddam is viewed as a protector against Israel. So the risk to the king of betraying the Iraqi leader is huge.

Nor is King Hussein the only moderate leader in the Middle East facing such dilemmas. Key American allies in the region—including Egypt's Hosni Mubarak, Turkey's Turgut Ozal, and the House of Saud in Arabia—could be vulnerable to a popular backlash against apparent American intervention.

Turkey's Ozal has taken a forthright stand in favor of squeezing Iraq. Once the main conduit for Iraqi oil exports and food imports, Turkey has closed its border with Iraq, costing it $2.5 billion in lost transit fees and exports to Iraq. While Turks feel the pinch, public opinion in Turkey remains sharply divided

BAGHDAD MARKET: THE NATIONAL DIET MUST SHIFT FROM IMPORTED GRAINS

ɔout what is often regarded as a show-ɔwn over cheap gas for American driv-'s. Ozal's political opposition is already ghting back hard. Former Prime Minis-r Bulent Ecevit is blunt: "We're on the rong side of this conflict."

Then there's Mubarak of Egypt. After ganizing the Arab League meeting at approved dispatching Moslem oops to Saudi Arabia, he faces a reac-ɔn from anti-American fundamentalist rces. As Mohamed Sid Ahmed, for-gn-affairs columnist for the leftist ewspaper *Al-Ahaly*, puts it: "He'll be oked upon as having given cover to .S. intervention in Arab affairs."

Just a week after the embargo start-l, that point of view had taken to the reets. Marchers rallied to Saddam's use in Tunis and Amman, and the aqi leader was exhorting loyal Mos-ms in Egypt, Algeria, and Syria to join s cause against the U. S.

A critical part of Saddam's strategy is portray the conflict as one pitting ɔorer Arabs against rich U. S.-backed nirs—with Israeli complicity, one rea-n why Israel has been mostly silent on e crisis in the gulf. That's hitting home Jordan. One left-leaning parliament ember, Ahmad Oweidi Al Abbadi, lled for "the Arab masses to rise up gainst the invaders and wage a holy ar against the foreign forces." If Sad-ım's strategy succeeds, frets Jordanian own Prince Hassan, "we will be deal-g with radical extremism that will eat vay at the sovereignty of states."

ESSURE ON JORDAN. The prince's other, King Hussein, faces the tough-t balancing act in his nearly 40 years power as he struggles to reconcile the nflicting interests of his bellicose east-n neighbor, Iraq; his wealthy one to e south, Saudi Arabia; and his long-ne patron, the U. S. The Jordanians y traffic now headed along its high-ays from Aqaba to Iraq is in goods dered before the embargo. Jordan is lking, officials say, with the U. N. Se-ırity Council to work out how they will mply with the embargo. Such talk ıys King Hussein some room to ma-euver among those who can crush him.

The problem for Jordan is that trade ith Iraq is crucial to its economy. Fully % of its oil comes from Iraq, and 23% Jordan's exports go to Iraq. With any influential Jordanians involved in at trade, the sanctions put "more pres-ıre on Jordan than on Iraq," observes ahd Fanek, editor and publisher of the *ordan Economic Monitor.*

King Hussein is also under severe do-estic political pressure. Recent parlia-entary elections were a big blow to the overnment because anti-government ndidates won a majority of the votes. hile pro-government candidates won e most seats, 26, Moslem fundamental-

JUST WHEN THE GULF ECONOMIES WERE GUSHING . . .

In the Muharraq area of Bahrain, the tiny island-state that serves as one of the principal offshore banking centers of the Persian Gulf, dozens of French and Japanese cranes tower over construction sites. Some 200 miles to the southwest, Dubai is about to launch a big international ad campaign to promote tourism. And in austere, wealthy Saudi Arabia, a booming stock market this year fed hopes that a vast privatization drive would succeed.

It has been boom time in the oil-rich countries of the gulf. That is, until Aug. 2, when Iraqi tanks rolled into Kuwait. And while parts of the globe are getting over the shock and regaining equilibrium, the gulf may be in for a long spell of bad times.

DHOWS IN DUBAI: LOSS OF CONFIDENCE MAY BRING A WAVE OF HARD TIMES

Repercussions in the gulf will be many. Rich entrepreneurs, who are the main prop of the gulf's feudal regimes, will take the most direct hit. And efforts to build efficient local capital markets in order to bring petrodollars back from London, New York, and Tokyo could fizzle. Infant stock markets in Bahrain and Oman, say bankers there, are now likely to fail.

The invasion came just as the economies of the Gulf Cooperation Council (GCC)—Saudi Arabia, Kuwait, Qatar, Bahrain, Oman, and the United Arab Emirates (UAE)—were starting to hum again. The mid-1988 end of the Iran-Iraq War signaled a renewal of confidence in a region traumatized by eight years of conflict. Real estate throughout the gulf spurted in value. Last May, a public offering in GCC countries of shares in Bahrain-based Arab Banking Corp., a profitable Libyan-UAE-Kuwaiti bank, easily raised $350 million.

WITHERED BUDS. During the first half of this year, Saudi economic growth outside the oil sector jumped 4%, its best showing since the early 1980s. Now, that budding expansion could wither and the nonoil economy begin to contract, according to local bankers. "The gulf depends on oil income and confidence," says Arab Banking Corp. senior adviser Hikmat Nashashibi. "We've had a rise in oil prices, but confidence has been affected." Now, predicts a senior Arab banker in Bahrain, "the loss of confidence in the area is going to whipsaw right through the whole gulf economy."

Suddenly, once-unsinkable currencies such as the Saudi riyal and the UAE dirham, backed by billions in oil reserves and Western assets, seem shaky. Some London banks are so wary they've stopped trading them altogether. Banks and money changers have been swamped with requests for dollars. Hours after Iraqi troops entered Kuwait City, the Saudi Arabian Monetary Authority began pumping foreign liquidity into the local banking system.

Across the gulf is Iran, which some see as a potential beneficiary of the GCC nations' woes. Removed from the Kuwaiti conflict, postwar Iran might now be able to redevelop its consumer markets more quickly than its neighbors. "Iran will take center stage," observes Terry J. Robinson, a director of Lonrho PLC, a British-based trading company with interests in cars, construction, and commodities, including oil in Iran and elsewhere.

The removal of Iraqi and Kuwaiti crude from the market is doing wonders for oil prices. That will boost government coffers in Saudi Arabia and the UAE, the GCC's two remaining big oil powers. But much of that surplus will now be plowed into defense spending, say senior Western diplomats in the gulf. Saudi defense outlays this year of $14 billion—36% of total government spending—will skyrocket.

For the foreseeable future, Iraq's seizure of thousands of expatriates is sure to color corporate perception of the gulf. Davy Corp., a British engineering firm with contracts throughout the Mideast, was bidding on a $1 billion fertilizer plant in Iraq. Now, says a Davy executive, "when you are considering whether to bid, you've got to ask yourself about the medium-term stability of the country and the client." He's not the only one asking that question.

By John Rossant in Dubai, with Richard A. Melcher in London

PERKINS/WOODFIN CAMP

■ BRAZILIAN CATTLE: WHILE THEY AGREE ON THE EMBARGO, COUNTRIES ARE DIVIDED ON HOW FAR TO GO IN ENFORCING IT

ists took 22. All political groups in Jordan have declared for Iraq.

Exploiting the class differences in the Moslem world is not Saddam's only trump card. He's also holding an estimated 10,000 foreigners still trapped in Iraq and Kuwait, including about 3,500 Americans. While Bush aides practically performed headstands to avoid uttering the loaded word "hostage," unconfirmed reports started to filter out about conditions in alleged Iraqi camps. Ali Riza Bozkurt, president of an Istanbul-based construction firm called BMB, was one of the first foreigners to be allowed to leave the camps, originally built to house Iranian prisoners of war. He said foreign prisoners were divided up according to "friendliness" with Iraq. Turks, Filipinos, Koreans, and Iranians were segregated, and some were even released. American, German, and British citizens were held separately.

DIRTY BLANKETS. Iraqi officials insisted all American "restrainees" were housed in luxury hotels. But Bozkurt has another tale to tell. He says that prisoners in his camp ate bread hard enough to break a brick, took soup from a communal cup, and slept on dirty blankets in the open air. The explosive hostage issue seems certain to greatly complicate Bush's mission—a fact Saddam knows every bit as well as the White House.

Even if Bush is successful in defusing the hostage problem and driving Saddam out of Kuwait, his work won't be done. "The mere containment of Saddam Hussein is not tolerable," said Joyce R. Starr, a Middle East expert at the U. S. Global Strategic Council, a Washington think tank. "If he leaves Kuwait on Friday, and the U. S. leaves the region on Monday, it's certain that he'll be back in Kuwait Wednesday."

■ NORTH AMERICAN WHEAT: A SCRAMBLE FOR NEW MARKETS

IRAQ'S HUNGER FOR FOOD IMPORTS

Imports as a share of total consumption

TEA & COFFEE	100%
VEGETABLE OIL	99
SUGAR	99
RICE	84
CORN	88
WHEAT	76
MEAT	65

DATA: U.N. FOOD & AGRICULTURE ORGANIZATION, 1986-88

To accomplish something more than a rollback to the way the world looked in July, Bush must keep up the relentless pressure. And possibly the single most nettlesome problem for Bush as he tries that is the prospect of dissension among allies.

Already, the first potentially dangerous signs of discord are cropping up. Although NATO members are sticking together better than anyone could have expected, the French have begun to edge toward an independent line. French President François Mitterrand—angered at a unilateral British and American decision on Aug. 13 to begin intercepting ships—dispatched aides to 24 countries to explain France's contrarian view. "Strangling Saddam won't be that easy," believes Ghassan Salame, a Lebanese-born Mideast expert at France's Institute for Political Studies. "Not everybody is as convinced as the Americans of the need to hurt him."

Were Saddam to offer a deal to withdraw from Kuwait, say, and hold a referendum to choose a new Kuwaiti government, the Europeans would be likely to smile. The Bush Administration, however, insists that Sad dam unconditionall withdraw all his force and allow the Emir t return to rule Kuwait.

The result is tha Bush not only is facin off against Iraq, bu will also have to sustai a major diplomatic e fort with U. S. allie and partners around th world. A protracted wa of nerves worries Rea Admiral Jerry L. Ur ruh, who command U. S. naval forces in the Persian Gulf. drawn-out crisis could begin to demora ize pilots and sailors under his comman "If you peak up and order the troops t get ready too quickly," Unruh say "you could begin to lose some of th high you want to have."

Similarly, Bush has popular and polit cal support as long as the Iraqi confro tation is quick and cheap—as long, yo might say, as it's no more than a sple did little war. But if it drags out, if th Iraqis torture hostages, if America young men and women return home i body bags by the dozens, then Bush domestic support would be put to a se vere test.

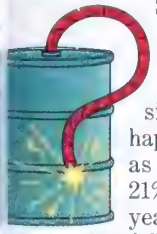
All that explains why Bush's can paign to break Saddam shapes up as th toughest economic, military, and psych logical contest since John F. Kenned set the nation on a course doomed t failure in Vietnam. And that's why Bus is rushing ahead to put every ounce c pressure on Saddam every bit as fast a he can. The big question is: Who wi crack first?

By John Rossant aboard the USS Independence, Stanley Reed in Cairo and Am man, Thomas Goltz in Ankara, Doug Ha brecht in Kennebunkport, Me., and Bi Javetski in Washington

COVER STORY

U.S.-JAPANESE RELATIONS MAY SLIP ON MIDEAST OIL

apan's economic resilience could mean new rifts over interest rates, the trade gap, and defense costs



Shock waves swept through the Tokyo financial markets the day after Iraq's invasion of Kuwait. Japan's hapless investors watched as stocks, already down 21% since the start of the year, collapsed a further 4% in the following two weeks. The anic selling might, at first glance, seem easonable: Japan, which imports 99% of s oil and gets nearly three-quarters f that from the Middle East, was the iggest customer for Kuwaiti and Iraqi etroleum.

Yet the concern seems badly misplaced. Barring oil price ikes far sharper than ose seen thus far, Japan seems set to merge from its third l *shokku* in surprisigly good shape. So ood, in fact, that longtanding tensions with e U.S. may well be xacerbated.

The bullish case rests rgely on how Japan as dealt with surging l prices in the past. In 974, Japanese companies shipped production verseas and ruthlessly uttered energy-intenve businesses whose tures seemed bleak. here's no reason to doubt there'll be a milar response this time, though increental improvements grow tougher as a usiness—or a country—approaches eak energy efficiency. Then, too, the ountry can crank up its formidable exort machine—and use the incoming ash to cover higher oil costs. All told, apan is still likely to boast growth in a ealthy 4% range, down half a percentge point at most from earlier projecons, says Masaru Yoshitomi, director eneral of research at Japan's Economic lanning Agency.

The political fallout from higher oil rices may be harder to contain. Though overnment forecasters reckon the 50% ike in oil prices since the start of the year will push up Japan's consumer price index by just half a percentage point, even that may be too much for government inflation-fighters. Faced with labor shortages and a strong domestic economy, the Bank of Japan already wants to boost interest rates to keep inflation from rising above its current level of around 3%.

UPSETTING THE CART. But any rise in Japanese rates could cause problems for Alan Greenspan in the U.S. The Federal Reserve chairman is under mounting political pressure to ease monetary policy as recessionary fears spread. Yet he must also keep an eye on the already weak dollar, which will probably tumble further if long-term rates in Japan climb toward U.S. levels. That's because Treasury bonds will lose what's left of their appeal for Japanese buyers, whose enthusiasm is already waning. Says Kenneth S. Courtis, chief economist of Deutsche Bank in Tokyo: "If the Bank of Japan raises interest rates, it will upset the applecart in the U.S."

Japanese attempts to cool inflation could also reignite trade tensions with the U.S. To slow the economy, the Japanese government may slow growth in public-works spending. But that would contravene the Structural Impediments Initiative (SII) agreement with the U.S., which calls for Japan to boost domestic demand by pouring $2.9 trillion into roads, sewers, parks, and housing over the next 10 years. Japanese officials are already arguing against raising public spending in the months ahead. "The fight against inflation should come first," says the EPA's Yoshitomi.

Ironically, any new troubles spawned by the standoff in the Persian Gulf will come in the wake of a series of successful bilateral trade talks that "have created an environment of harmony," as U.S. Trade Representative Carla A. Hills sees it. Estimates put Japan's trade surplus with the U.S. at $39 billion for 1990, down from $49 billion in 1989. But Washington had been counting on accords reached during the talks in June to continue closing that gap. There's another risk to U.S.-Japanese relations that's far harder to gauge. Though there's little sign of it yet, a protracted and expensive U.S. defense of Japanese oil supplies could ultimately lead to American resentment. As one top U.S. trade official says of the American expeditionary force: "It's an effort for which they [the Japanese] are the No. 1 beneficiary. They'd be cold and in the dark long before anyone else."

BRIGHT LIGHTS: EVEN WITH HIGHER ENERGY PRICES, TOKYO EXPECTS 4% GROWTH

Although some Tokyo officials worry about being accused of taking a free ride, most argue that Japan has done its part by honoring the U.N. sanctions against Iraq and Kuwait. Still, there are signs that officials on both sides of the Pacific fear just such a backlash. Though no specifics were provided, President Bush on Aug. 14 told a press conference that he fully expected Japan to ultimately help defray the gulf effort's huge costs. So far, though, there's been little confirmation from Tokyo that such a step will take place. But there's also no sign that Japan would risk that kind of friction with Washington.

By Ted Holden in Tokyo, with Paul Magnusson in Washington

COVER STORY

DOES ANYBODY REMEMBER 'THE MORAL EQUIVALENT OF WAR'?

Not really. The latest oil shock has stirred a lot of concern, but very little action

As Iraqi tanks stormed Kuwait's sands of plenty and gasoline prices shot up, Tom Wilcox of Dixon, Calif., was preparing to buy a shiny new Dodge Caravan. The news gave him pause. On the one hand, the 34-year-old mechanical engineer wanted more room to carry his growing family. On the other, the Dodge's 21-miles-per-gallon rating didn't say much for its fuel economy. But so far, Wilcox is sticking with his original plan. "It definitely raises a concern," he says of the Middle East drama. "Anybody who remembers the gas crisis of . . . When was that, anyway?"

Americans haven't forgotten previous oil-price hikes that sent them scurrying to high-mileage cars and led President Jimmy Carter to declare U. S. energy policy "the moral equivalent of war." But memories have faded. And 10¢, even 20¢ a gallon more at the pumps isn't enough to bring things sharply back into focus—although the slowing economy is sure to put a crimp in discretionary driving. The crunch is fueling new calls to curb the country's 8.4 million-barrel-a-day appetite for foreign crude.

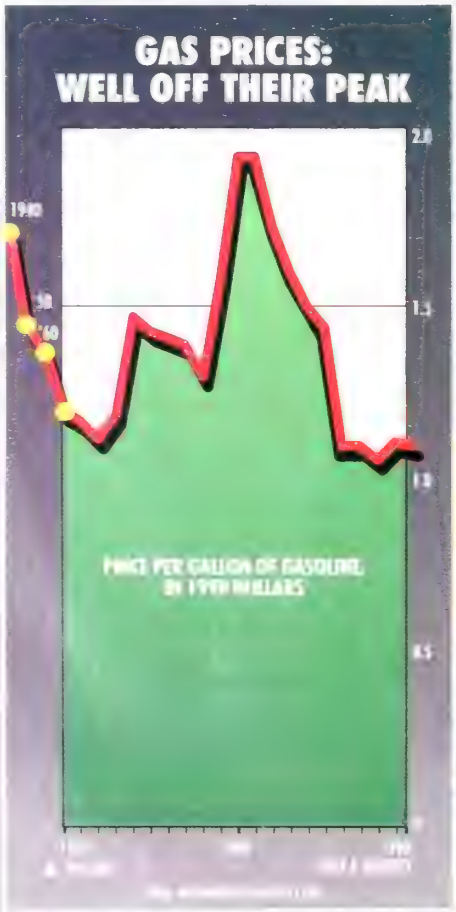
But a major battle is brewing over the best way to do that. Environmentalists see the crisis as an opportunity to push for conservation and alternative fuels. The oil industry focuses on offshore drilling and other moves to expand supply. That disagreement will likely limit any significant strides in energy policy this year.

Even if the ideological differences could be smoothed over, any resulting energy coalition would face daunting problems in convincing consumers to mend their ways. J. Michael Davis, the Energy Dept.'s Assistant Secretary for Conservation & Renewable Energy, terms the Iraq crisis a "wake-up call" for U. S. energy policy. But until it faces much higher prices, the American public is likely to sleep in.

BACK TO REGULAR. The limits of short-term efforts to curb oil use were highlighted at an Aug. 15 press conference when Energy Secretary James D. Watkins and other Energy Dept. officials announced a set of actions they claimed could save nearly 550,000 barrels of crude a day within six months. Watkins' list included such worthy suggestions as carpooling and keeping tires properly inflated. But for now, Energy Dept. officials insist that they can't force consumers to make major lifestyle changes.

Like Watkins, energy-conservation advocates are focusing on transportation, which accounts for nearly two-thirds of all U. S. petroleum demand (chart). Most of that is for gasoline—but so far drivers aren't taking much notice. Gasoline prices have gone up some 13%, not much compared with 35.3% in 1973-74 and 38.5% in 1979-80. So, despite a few more ads touting high-mileage cars, dealers and consumer experts report few changes in buying patterns. Richard T. Curtin, director of the University of Michigan's Survey of Consumer Attitudes, says that until price uncertainties are resolved, "I don't think you'll see consumers making substantial movements toward smaller vehicles."

More detectable effects should be



GASOLINE HAS RISEN ONLY 13% SO FAR, NOT MUCH COMPARED

en at gasoline pumps. "When prices se 10¢ or 20¢, people head back to regu- r," says Kenneth D. Miller, of Houston l consultant Purvin & Gertz Inc. But at should produce only a modest drop 2% or so in consumption over the next months. Consumers aren't likely to oid the airways due to higher fares, ther. Several major carriers postponed til Aug. 22 or 23 scheduled 5.3% fare creases to cover jet-fuel prices. At the me time, many sought to fill seats by ashing fares by 30% or more.

On the legislative front, environmen- lists, consumer groups, and politicians l agree that America has gotten slack. e Motor Vehicle Manufacturers Assn. ports that motorists drove more than 2 illion miles last year, up 2.8% from 88. And largely because of demand for gger cars, average new-car fuel econo- y fell last year for the first time since 83, from 28.7 miles per gallon to 28.3. We're really losing momentum," says hristopher Flavin of the Worldwatch stitute, an environmental think tank in ashington.

But don't hold your breath waiting for ashington to seek new energy urces—or attempt to reform motor- ts' ways. Since the Iraqi invasion, oil mpanies are pushing to open offshore illing areas and the Arctic National ildlife Refuge in Alaska, now closed to cploration. But they're in for a fight from environmentalists. Besides, the search for new domestic crude just obscures the main issue. Says Energy's Davis: "The real domestic resources are in reducing demand and changing to alternative liquid fuels."

The most effective way to put a dent in demand could be to raise the federal gasoline tax. It's now 9¢ a gallon, far less than in most developed countries. Adjusted for inflation, gasoline now costs less than at almost any time since 1940 (chart). New-tax advocates say the Iraqi invasion highlights the need for drivers to pay their fair share.

But the logic behind such an increase is sure to give way to political reality. The entire House and a third of the Senate are up for reelection this year. A forthright stand in favor of higher gasoline taxes won't wow many voters, especially with worries mounting that a recession is in the cards. A serious debate on the merits of such taxes or some broader energy levy will probably have to wait until next year, at best, when the Administration unveils its long-promised National Energy Strategy.

Meanwhile, another battle is shaping up over legislation that would raise Corporate Average Fuel Economy (CAFE) standards for cars to 40 mpg by the year 2000. "We've been going backward, and that's not good for our national security," says the bill's author, Senator Richard H. Bryan (D-Nev.). Proponents say it would save 2.4 million barrels of oil per day by 2005. But auto makers argue that meeting Bryan's target would mean selling nothing but economy cars such as the Ford Escort—and that goes against the grain of consumer trends.

OVER THE HUMP? Bryan's bill was considered a close call for Senate passage before the Iraqi crisis. Now, backers say it might be over the hump. But a similar measure in the House faces a much tougher fight, mainly from Representative John D. Dingell. The Michigan Democrat chairs the Energy & Commerce Committee, which gets first crack at the bill. And Dingell, whose district is home to Ford, is in the carmakers' camp.

Besides autos, nothing gobbles up oil like steel mills, chemical plants, and other factories. Many could switch to natural gas or coal but so far have stuck with oil—largely because it's plentiful and cheap. So is coal, but it's environmentally unacceptable and will remain so until "clean" technologies are readily available. Right now, natural gas is a better bet. Spot gas sells at $1.30 per thousand cubic feet, the equivalent of about $8 a barrel. And the potential for finding new domestic reserves is far more promising than for oil.

The Energy Dept. says that within six months, industry could save up to 304,000 barrels of oil a day by switching to gas. Add 192,000 more if commercial and residential users also changed. Electric utilities, which account for 4.9% of demand, could save 70,000 barrels a day by converting.

But any widespread switching requires big investments in equipment and pipelines, says Tom Robinson of Cambridge Energy Research Associates. And, he notes, it'll take government credits or sharply higher gas prices for at least a year to spur the search for new reserves.

Clearly, the opportunities for increasing the energy efficiency of the U.S. economy are vast. And most oil-guzzling Americans realize that they must curb their wasteful ways—someday.

By Robert Buderi in New York and Mark Ivey in Houston, with Vicky Cahan in Washington and bureau reports

% IN 1973-74 AND 38% IN 1979-80

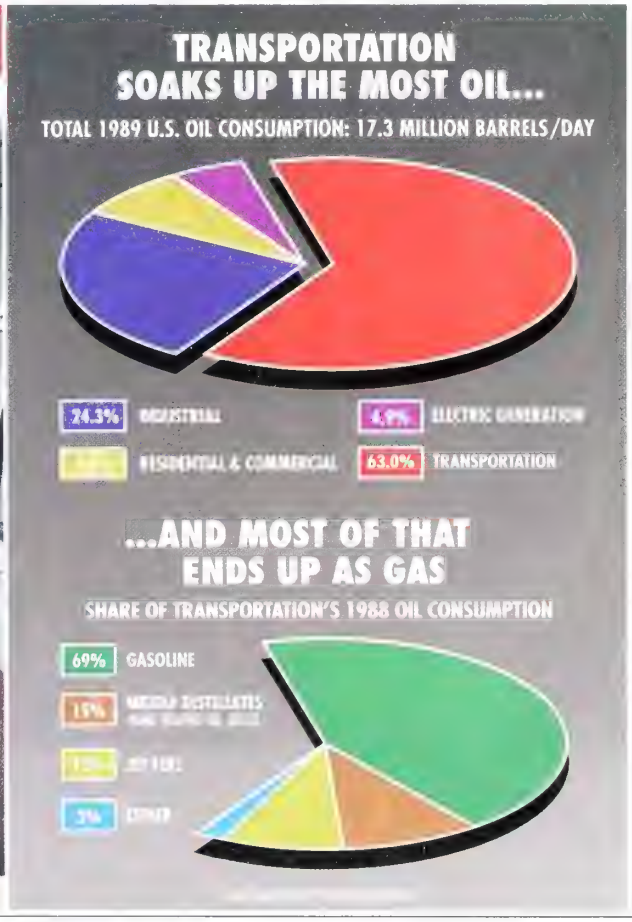


CHART BY LAURIE DAUNIS/BW

COVER STORY

'THIS IS NOT 1987 . . . . THIS IS A CHANGE OF ECONOMIC DIRECTION'

Saddam has put the global bull market on hold, perhaps for a long time

Stock markets toppling worldwide. A weak dollar growing feebler. Interest rates rising and gold triumphant. A world financial community that barely a month ago was enjoying the fruits of freedom in Eastern Europe, the *glasnost* market of peace and confidence, has been plunged into uncertainty and fear of war—the Saddam Hussein market.

The initial shock of Iraq's invasion of Kuwait fell heavily on U. S. markets, which suffered their most sustained crisis since the 1987 crash. But as the drama in the Persian Gulf has played out in recent days, the action—and agony—have shifted overseas. Everywhere, it seems, the feeling is spreading that the global bull market is on hold, perhaps for a long time. "Clearly, the world changed when Iraq invaded Kuwait," says Robert G. Heisterberg, a senior vice-president of Alliance Capital Management in New York. "It changed the politics and economics of energy. In the short term, that's going to mean inflation. In the long term, it will mean slower growth."

FREE-FALL. If so, that's bad news for the increasing numbers of U. S. investors who are going global. True, the dollar remains weak, and if it falls further, that should beef up returns of overseas investments. And the market setbacks in 1987 and 1989 showed that buying on weakness often pays off. But "this is not 1987 or 1989," notes Eric C. Elstob, vice-chairman of Foreign & Colonial Management Ltd., a London money manager. "Those were financial market shakeups followed by a rebound because the underlying economies were sound. This is a change of economic direction."

In a sense, the change in course has been most jarring not in Japan, where the Nikkei Stock Average declined 7% by Aug. 15 in the wake of the Iraqi invasion, but in the once-serene bourses of Europe. Tokyo has been in the doldrums for much of this year and, after a rocky January, suffered a spectacular February collapse.

Europe, by contrast, has been riding high all year. Investors in most of Europe's markets had enjoyed spirited gains, largely as a result of the opening of Eastern Europe. But since the Aug. 2 seizure of Kuwait, the 13 European markets tracked by Morgan Stanley Capital International have dropped 8.2% (chart), vs. 5.4% for the Dow Jones industrial average. Europeans are worried their economies will buckle under the force of rising oil prices, with lower growth savaging corporate profits.

Even if recession isn't in the cards, a sustained anti-inflation fight by central banks will keep interest rates high—and the stronger economies in Europe will probably suffer more than the U. S. And there's the added specter of a slowdown in Eastern Europe. Those nations, which for years received cut-rate petroleum from the Soviet Union, are now required to pay market prices—which are pushing toward $30 a barrel.

Nowhere has the Saddam Hussein market been more keenly felt than in Vienna. Since July 31, the Vienna bourse has fallen 16.1%—6.5% in the past week alone. Bourses in Paris and Germany have also suffered, with German stocks dropping 10.6% this month. Although U. S. and British investors aren't dumping stocks, Bank of Liechtenstein portfolio strategist Heinrich Ackermann notes that there's virtually a "buyer's strike," with volume running at half the pre-invasion level.

STALEMATE. What's next? The byword everywhere, from Tokyo's Kabutocho to Wall Street to the City of London, is continued caution. So long as Iraqi troops and multinational forces remain stalemated, it's hard to see how the world's markets can return to normal. "I think the market is going to be a very labored affair," says Jonathan Grossman, chief investment strategist at Laidenburg, Thalmann & Co. in New York. One area of intense activity, aside from oil futures pits, is likely to be gold markets, where prices touched $425 an ounce on Aug. 13. After only a modest initial runup, the metal has flourished since it became evident the crisis wouldn't quickly abate. With no Mideast resolution in sight, gold seems on the verge of reasserting its traditional role as an inflation hedge.

The bravest—and perhaps smartest—investors may well be those who continue to bet on Eastern Europe's revival. Even in a slow-growth climate, the East bloc should outpace the rest of the Continent. Moreover, Eastern Europeans will be under greater pressure than ever to replace outmoded factories, which guzzle 50% to 100% more energy than their Western counterparts. "You can't kill [the rebuilding of Eastern Europe] with a stick or even a howitzer," says Thomas R. Holmes, institutional manager at Frankfurt private bank Schröder Münchmeyer Hengst & Co. Food for thought for investors awaiting the next move of the man in Baghdad.

By Gary Weiss in New York, with John Templeman in Bonn and bureau reports

Melting Point: 6900 degrees Fahrenheit.
The cherished diamond is recognized as among the most invincible of precious stones.
For a diamond has a melting point two and one half times greater than even that of steel.
Which means, long after steel has turned to molten liquid, a diamond remains brilliantly intact.
As the earth's most stalwart of stones, a diamond also ranks among the most costly and rare.
Yet isn't it worth it for the woman you love?
A diamond is forever.
De Beers

FRANK LORENZO: THE FINAL DAYS

His exit was vintage Frank: Tough talk, wily dealmaking, and $30.5 million for himself

Frank A. Lorenzo's most valuable asset was never an airline, its routes, or its planes. It was time. Given plenty of it, he transformed borrowed money into a major air carrier, outlasted three national unions, maneuvered in and out of bankruptcy, and helped change the way an entire industry operated. Room to maneuver was what time amounted to in Lorenzo's universe. But this summer, time ran out.

Lorenzo endured a decade of financial chaos and union turmoil by setting his jaw and plowing through the endless stream of controversy. To the unions, he was rapacious and stubborn. To Wall Street, he was "Frankie Smooth Talk," a nickname he picked up at Harvard business school. In the end, the smooth talk wasn't enough. On Aug. 9, Lorenzo announced a $30.5 million deal to sell his interest in the former Texas Air Corp. to Scandinavian Airlines System.

The surprise is that Lorenzo's largely handpicked board substantially limited his payout. Lorenzo himself admitted that his poor public image was hurting Continental Airlines Holdings Inc., as Texas Air is now called. But interviews with people close to his departure indicate that the board and SAS finally tired of Lorenzo's endless maneuvering, too. While SAS demanded that Lorenzo relinquish all operating control of the company, the previously compliant board shaved $10 million off of Lorenzo's demands. "The lapdog finally jumped off the lap and grew teeth," says a source close to the board. Lorenzo declined to comment for this article.

SINKING EMPIRE. It wasn't so long ago that Lorenzo's creation was the nation's largest airline company, a leveraged amalgam of Continental, People Express, Frontier, and Eastern with $8.6 billion in sales (table). Lorenzo had turned a $25,000 investment in Texas International Airlines in 1971 into an empire with a market value of $2.1 billion at its 1987 peak. And that's when Lorenzo began cashing out. He gleaned about $7 million by dumping much of his common stock near the top. He continued to dominate the company through an investment vehicle called Jet Capital, which controlled 33% of the Texas Air vote through a special class of stock.

By 1989, though, he began to think about selling his remaining stake. Laden with debt, Lorenzo's empire began to sink under its own weight. While Continental wrestled with integrating Frontier, Eastern's unions walked out, forcing the carrier into bankruptcy.

At the urging of longtime Texas Air board member Carl R. Pohlad, Lorenzo cut a deal, later aborted, to sell Eastern to former Baseball Commissioner Peter V. Ueberroth for $464 million. Lorenzo also flew to Copenhagen to begin talks with SAS CEO Jan Carlzon about unloading Continental. SAS already owned 9.8% of the carrier and shared with it a transatlantic marketing agreement.

The multiple negotiations were characteristic of Lorenzo, friends and associates say. One of his chief survival strategies has always been to simultaneously explore as many escape routes as possible. "He may have at any one time two to three often contradictory discussions going on at the same time," says a longtime board member.

DONNYBROOK. During a series of meetings in Paris, New York, and London, Carlzon watched Lorenzo dodge and feint. "Every time we thought we had something nailed down, he'd change it," says an SAS source. Talks waned last fall as passenger traffic—if not earnings—began to turn up at Eastern, while Continental posted a modest third-quarter profit. After December, Carlzon didn't hear much from Lorenzo at all.

By this spring, though, an industry downturn had plunged Continental back

LORENZO'S FLIGHT PATH

1966 Lorenzo and Robert J. Carney, a buddy from Harvard, form an airline consulting firm

1969 Lorenzo and Carney put up $25,000 each to form Jet Capital

1971 Called in to fix ailing Texas International Airlines, Jet Capital takes control

1980 Lorenzo starts nonunion New York Airlines and creates Texas Air

1981 After a two-year battle, Lorenzo takes over Continental Airlines

1983 To abrogate its labor contracts, Lorenzo takes Continental into bankruptcy court

1986 Texas Air snaps up Eastern, People Express, and Frontier airlines

1989 In a showdown with Lorenzo, Eastern's unions strike. The company flees into bankruptcy court

APRIL, 1990 Bankruptcy judge kicks Lorenzo out of Eastern and appoints trustee Martin R. Shugrue to run the airline

AUGUST, 1990 Lorenzo agrees to sell Jet Capital, which controls Continental, to SAS. He vows to stay out of airlines for seven years

DATA: BW

ito the red and forced Lorenzo into a rueling public fight to retain control of astern—one he ultimately lost. The ear-long Eastern episode "was unbeevably stupid," says one Continental oard member, noting that the donnyrook cut traffic at Continental while iddling the company with responsibility or an unfunded-pension liability as high s $800 million. Hardly what Continental eeded, given its weak earnings, pressg need to upgrade its fleet, and about 200 million in debt due this year.

Some close observers say the battle chausted Lorenzo's endurance. Others ay Pohlad began to push for a sale. ounters Pohlad: "Frank makes his own ecisions." One of them was to pick up ie phone and call Carlzon in late April.

IPPING GRIP. By June, Carlzon and orenzo were in heated negotiations. orenzo had even hired Heidrick & truggles Inc. headhunter Gerry Roche find a CEO to replace him. "Frank ecognized he needed to step aside to elp the airline," says Carlzon. And Carlon wasn't about to put in more money ntil he did. In July, the two presented a an to the board under which Lorenzo nd another officer would receive $31.5 illion for their stock, management greements, and unvested stock options. oreover, Lorenzo would get another 10.8 million for his Jet Capital stock nd a 5-year consulting pact worth over $400,000 annually. He would also be subject to a lax noncompete agreement.

Even after the board presentation, directors and SAS officials say they still weren't convinced Lorenzo would follow through. But by then, he may have had no choice. His grip on the board had begun to slip in early May, when preferred shareholders won the right to appoint a director without Lorenzo's blessing. And once a special board committee was formed to examine the SAS offer, "it took the process out of his hands," says an SAS source. "The committee had to look after the interests of the shareholders, and that was no longer the same as Lorenzo's interest." That perception was reinforced by the presence of the new outsider, James A. Lawrence, a former Bain & Co. consultant.

Indeed, the board was tougher on Lorenzo than Carlzon had been. It eliminated the consulting deal and added four years and stronger language to the noncompete agreement. And by nixing the purchase of his unvested options, it reduced Lorenzo's take by about $10 million. If the Transportation Dept. approves the deal, Lorenzo will clear $30.5 million, while Continental receives a $10 million capital infusion.

With the stock trading below $5 a share the day before the deal was announced, Lorenzo's price of $14 was still a steep premium, and shareholders filed suit on Aug. 14 to block the deal. But one director says that the scheme was the only way to get Lorenzo out. And Lorenzo had to go: Not only was SAS demanding it, but the board was told that Lorenzo's continued presence would make settling its dispute with the federal Pension Benefit Guaranty Board almost impossible. That long-simmering fight was spooking capital markets.

DEFIANT. Those woes now land in the lap of Lorenzo's successor, former Delta Air Lines President Hollis L. Harris. And fixing Continental will be no picnic. "Businesspeople just don't like to fly Continental, and that's where the money is," says a former company manager. The turmoil under Lorenzo didn't exactly foster stable management. Says another former Continental executive: "Continental is run by a group of hardened crisis managers who operate from day to day. There is no infrastructure."

Harris may also have to worry about Lorenzo. At an Aug. 14 farewell to employees in Houston, a packed house of 3,500 gave Lorenzo a standing ovation. A defiant Lorenzo said he plans to stay on the board and remain active. "He'll just be one of 15 directors," counters a board member. That's true. But Continental—and the industry—may yet hear more from Frankie Smooth Talk.

By Mark Ivey in Houston and Michael Oneal in New York

◀ Lorenzo: He'll get $14 a share—with stock trading below $6

▶ Pohlad: Though he denies it, some close observers say he was the catalyst in the deal

◀ SAS Chairman Carlzon: 'Frank recognized he needed to step aside to help the airline'

(CLOCKWISE FROM LEFT) PHOTOGRAPHS BY ANDREW POPPER, STEVE WOLT, STEVE CHAN, NILSSON

RETAILING

SEARS TRUCKS: COSTS ARE RISING—AND HEAVY DISCOUNTING MEANS NARROWER MARGINS

CAN ED BRENNAN SALVAGE THE SEARS HE DESIGNED?

Faced with its continued decline, he seizes direct control of retailing

To hear Sears, Roebuck & Co.'s board members tell it, Chairman Edward A. Brennan earned his pay this month. His feat: the summary demotion of Michael Bozic from the crucial job of running Sears' $32 billion retail operation.

According to board member Edgar B. Stern Jr., Brennan marched into a regularly scheduled meeting of the executive committee on July 31 and announced that "the company needed more experienced hands." Then, says board member Donald H. Rumsfeld, to the surprise of no one present, Brennan said he would reassume personal control of Sears' retail efforts. Says another board member, former American Airlines Chairman Albert V. Casey: "If we didn't have an Ed Brennan, we would have to find him. People who grew up with a business can change it better than an outsider."

'FALL GUY.' But outsiders question that version of events. One consultant with close ties to Sears' managers says a restive board, exasperated with Sears' slow turnaround, told Brennan to do something fast. "The board cannot ignore these problems any longer," says this source. What followed was the surprising humiliation of Bozic, a Brennan loyalist. "He was the fall guy," says Louis W. Stern, a marketing professor at Northwestern University who knows Bozic and other Sears executives. Brennan and Bozic declined comment for this story.

Shareholders won't be so easily appeased. Sears' stock has slid from 46 a year ago to a recent 30⅝. For the first half of 1990, net income for the retail operations fell 63%, to $73 million, on flat sales of $15 billion. Meanwhile, discounter Wal-Mart Stores Inc. will probably replace Sears as the biggest U. S. retailer next year, while K mart Corp. will edge out Sears for the No. 2 spot.

Brennan, a charismatic manager who made his name as a merchandising chief a decade ago, is now directly responsible for reversing Sears' decline. What alarms some shareholders is that this would-be turnaround artist designed the strategy he's trying to salvage. After first failing to anticipate the rise of Wal-Mart and the appearance of such specialty discounters as Home Depot Inc. and Circuit City Stores Inc., Brennan decided Sears would offer everyday low prices on brand-name appliances in addition to the Kenmore house brand. But the low-price approach calls for tight cost control. Instead, costs have risen $600 million this year.

Worse, the rank and file remain confused. One major supplier says Sears' buyers are hesitant to make commitments because they don't know what higher-ups want to sell. And customers don't always find the promised bargains or brands. When customer Margaret Gallagher went shopping for a washer and dryer in Hayward, Calif., recently, she couldn't find the Amana machines she wanted. But she found them at a local Montgomery Ward & Co. store where she paid $150 less than Sears' competing Kenmore offering.

Can Brennan transform the culture that nurtured him? Says retail consultant Carol A. Farmer: "He is so in love with Sears the institution, and it's Sears the institution that needs to be debunked." Another possible problem: Brennan will keep his title and duties as chief executive, which means he must still oversee the company's Coldwell Banker Real Estate, Allstate Insurance and Dean Witter Financial Services divisions. Says Russell E. Thompson, a money manager with Waddell & Reed Inc., which holds 500,000 Sears shares: "He'd crazy if he thinks he'll have time to run the merchant division."

STAFF OF 6,000. The 56-year-old Brennan has given no sign that he intends radical change. But plenty of consultants and analysts think they know how to revitalize Sears and make needed cost cuts of an estimated $1.5 billion. One suggestion: Raise about $10 billion by selling and leasing back Sears' retail properties, then plow the money into improving computerized inventory controls. Sears could also stop selling fashion apparel and concentrate on hardware, home appliances, and automotive supplies. And Brennan could make the toughest decision of all: slashing Sears' headquarters staff of 6,000. Wal-Mart, by contrast, has only 2,500 headquarters employees.

Sears has already abandoned one radical idea—a partnership with Montgomery Ward, run by Brennan's brother Bernard. Bernie Brennan's low-price, low-cost brand-name strategy has produced profits at Ward, despite flat sales. Board members say they considered Bernie's proposal that Sears buy Ward. But the deal was scuttled, says one outside director, by antitrust concerns and an analysis showing that "Ward's shoppers were a lower class of people, who might not shop at Sears." Given the company's long-standing woes, Sears' shareholders can be forgiven for wondering if this latest round really is good news.

By Kevin Kelly in Chicago, with Laura Zinn in New York

CHAIRMAN BRENNAN

REMEMBER THIS GUY, DONALD?

'rump's bankers may have forced im to hire an old foe

Stephen F. Bollenbach can't seem to stay away from Donald Trump. On the day Bollenbach started ork as chief financial officer at Holiday orp. in 1986, Trump announced his in- ntion to mount a hostile takeover bid r the parent of the Holiday Inns Inc. ain. Bollenbach moved quickly to repel at invasion by engineering a $2.6 bil- n borrowing binge to fund a $65-a- are dividend to shareholders. Now, the bles are turned. Trump announced on ug. 14 that he was hiring Bollenbach his chief financial aide to help rescue m from his debt problems.

Both men say the decision was rump's alone. But the fingerprints of rump's bankers appear all over the con- act. Since they rescued him from bank- ptcy in a June bailout, the banks have en pushing Trump to hire a financial pert to pare down his $3.37 billion in bt. And the hiring of a wizard who ade his mark selling off hotel proper- es at Holiday and Marriott Corp. only rengthens that suspicion.

TRONG HAND. Bollenbach's first task ill be crafting a restructuring plan for e $1.3 billion in junk bonds of Trump's ree Atlantic City casino-hotels. The nds now trade as low as 40¢ on the llar because of fears the casinos won't enerate enough cash to fund debt re- ayments. Any deal will almost certainly ave to include an equity component be- ause the bonds are first-mortgage secu- ties. That gives bondholders a stronger and than usual in distress junk restruc- rings. Indeed, some holders are known be contemplating a hard-line position: hey may demand that Trump accept a inority position, or sell out completely.

Bad times in Atlantic City will compli- ate the negotiations. Gaming revenues measured by the casinos' winnings ere flat in July compared with a year arlier. As bad as that sounds, the reali- is worse: The tally includes Trump's ew Taj Mahal, which boosted casino ca- acity in the city by 18%. Trump's earlier rediction that the Taj would bring more ettors to Atlantic City clearly isn't pan- ing out. His explanation now: "The hole Northeast is in a recession." By laming external events, Trump may be etting set to take some chips off the able—this time with his old foe's help.

By Chuck Hawkins in Atlanta, with oseph Weber in Philadelphia

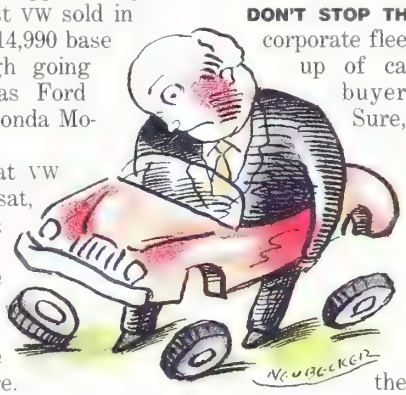
Commentary/by James B. Treece

DETROIT COULD USE A TASTE OF ITS OWN LEMONS

Volkswagen became famous for its simple Beetle. Now, it wants to be known for a simple sales promise: "You're either completely satisfied with your new Passat," says Volkswagen of America Vice-President Bill Young, "or we refund all of your money. Period."

The money-back guarantee doesn't apply to rental-car companies or if the car has been in an accident, but the list of exclusions is short. Since Aug. 10, buyers of VW's Passat sedans and wagons have been able to return the car within 30 days or 3,000 miles for a full refund. The guarantee applies only to the Passat, the largest VW sold in America, which at a $14,990 base price has faced tough going against such rivals as Ford Motor's Taurus and Honda Motor's Accord.

As a statement that VW stands behind the Passat, the guarantee should allay buyers' fears of making a five-figure blunder. And that could boost sales. Yet such a guarantee could do so much more. It could give the men and women who make our cars a rare chance to perfect their too-often imperfect products.



VW isn't the first car company to let buyers bring back their cars. General Motors Corp.'s Oldsmobile Div. also allows customers to return any of its cars after 30 days or 1,500 miles. At Olds, though, unhappy buyers get credit toward the purchase of another Olds—not cold cash.

To the auto makers, the guarantees make a lot of sense because they're remarkably inexpensive: Most buyers don't become dissatisfied with their cars until well after the smell of a new interior is gone. Olds, for example, says that only 1.2% of new-car buyers take it up on its pledge. Even then, about half the time they just want a different color, or four doors instead of two.

All returned Oldsmobiles are checked for mechanical soundness and, if they're O. K., are auctioned to dealers who then sell them as used cars. VW will do likewise. That means that the returned cars join a pool of nearly new cars from rental fleets and demonstrators on the used-car lots.

That's a waste. Every car company in America now maintains a fleet of new cars for its top brass—sometimes competing models, but mostly the cream of the manufacturer's own crop, kept coddled and clean. A fresh car, impeccably serviced and refueled as if by magic, is one of the prime perks of life in the auto industry—both in Detroit and at the U. S. headquarters of importers.

DON'T STOP THERE. What if those corporate fleets were mostly made up of cars that disgruntled buyers brought back? Sure, some of the fleet would be blue cars returned for red ones. But others would be genuine lemons returned by righteously irate consumers. Put those cars in the fleets, lay off the mechanics who service the big shots' wheels, and let the top brass fend for themselves. That could do more than a hundred customer surveys to let top management know if quality really is job one, if their cars actually have the advantage, or if their cars really are built for the human race.

Nor is there any reason to stop with the auto makers. At computer companies, all bigwigs could be assigned computers that had been returned because of, say, faulty disk drives. Or appliance executives could be forced to take home fault-ridden washers or dryers.

But the opportunity is biggest at the auto makers. After all, a car is the second-largest purchase most consumers make. That's why lemons are so maddening. Having senior managers drive cars that customers tried and rejected would go a long way toward forcing them to wake up and smell the lemonade.

What if auto executives were given the cars that disgruntled buyers brought back?

THE S&L CRISIS

CENTRUST, THE SAUDI, AND THE LUXEMBOURG BANK

Probers study the failed thrift's links to Ghaith Pharaon and BCCI

PAUL AND PHARAON (1977 PHOTO): OPPORTUNE FOREBEARANCE FROM REGULATORS

Investigators looking into CenTrust Savings Bank still marvel at former Chairman David L. Paul's opulent offices: $3 million Italian marble staircase, gold-plated bathroom sinks, cherrywood furniture. But what has them riveted now are ties between Paul and Ghaith R. Pharaon. The flashy Saudi businessman, already controversial in banking circles, was the No. 2 shareholder in CenTrust, perhaps the worst of the failed thrifts.

BUSINESS WEEK has learned that the federal grand jury in Miami that is probing the thrift is examining links among Paul, Pharaon, CenTrust, and Bank of Credit & Commerce International. The Luxembourg-based BCCI has been in lots of hot water of its own: In January, two subsidiaries pleaded guilty in a federal money-laundering case and had to forfeit $15 million. In July, five BCCI officers were found guilty in the same case. From the early 1970s through 1985, Pharaon was a major BCCI shareholder.

YACHTING HOLIDAYS. Neither Paul nor Pharaon could be reached for comment. But it's no secret that they were more than business partners. Former associates of the two men say Pharaon and Paul were friends, often vacationing together in France and on their yachts in the Caribbean and Mediterranean.

Less well understood are many of their dealings. But from interviews with regulators, investigators, former CenTrust officers, and Pharaon's former associates, it's beginning to look as if Pharaon may have helped keep regulators off CenTrust's case for a time.

Pharaon, who owns the estate Henry Ford built in Savannah, Ga., made his most publicized foray into U. S. banking in 1977, when he bought 60% of National Bank of Georgia from Bert Lance, who had just been forced out as President Jimmy Carter's budget director. Later, he bought the rest of it, selling out in 1987. And Pharaon used to own interests in Michigan and Texas banks and still owns a piece of one in California.

But it was his tie to BCCI that most intrigues investigators. They suspect it was through Pharaon's connections that in May, 1988, BCCI bought $25 million of CenTrust bonds in a $150 million bond sale. At the time, CenTrust was under pressure from regulators. It also planned to raise cheaper capital via the bond offering. But two months later, according to the Federal Home Loan Bank Board, a CenTrust subsidiary bought the bonds back from BCCI. That way, the shaky thrift appeared to be raising more capital than in fact it was.

> Did CenTrust sell bonds to BCCI—and then quickly buy them back—to appear to have raised more funds than it did?

Paul's attorney, Aubrey B. Harwe Jr., has denied that Paul did anythin wrong in the bond offering. But invest gators still wonder: Was the buy-bac arranged in advance? Just days befor the bond offering, according to publ documents, Paul's calendar shows scheduled meeting at BCCI's Washingto office. It's unknown with whom Pa met. But Pharaon, a big BCCI borrowe and former shareholder, could hav made key introductions.

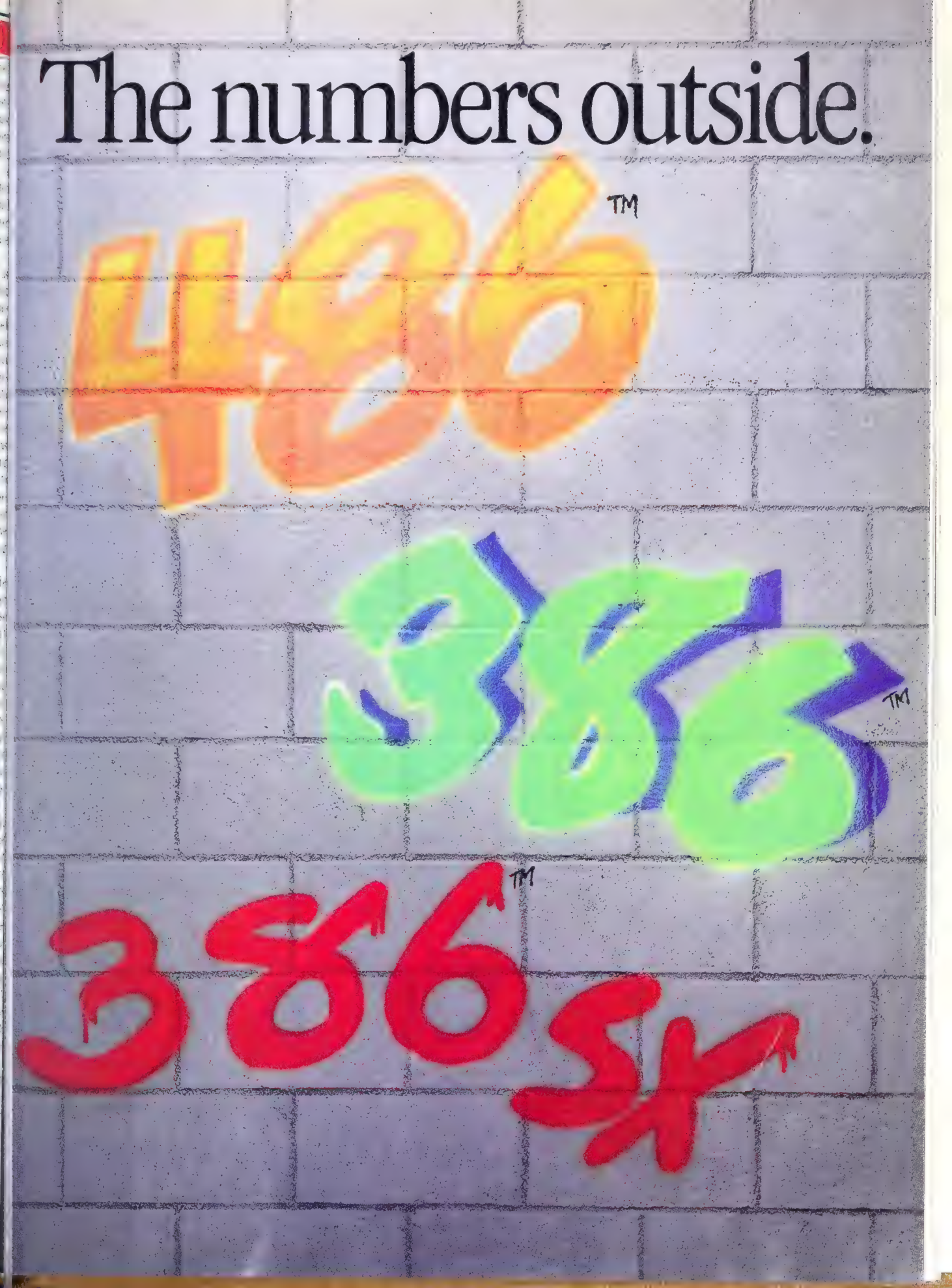
Attorneys for Pharaon portray him a a "passive investor" in CenTrust. Bu since January, 1988, when Pharaon a quired a 25% stake in the Miami-base thrift for $22 million, he appears to hav taken an active interest. In 1988, with a entourage that included Savannah atto ney Charles Jones, Pharaon met wit Park T. Zimmerman, then CenTrust's su pervisory agent at the Federal Hom Loan Bank of Atlanta. Zimmerman wa critical of CenTrust's securities tradin and had been pushing his superiors t order CenTrust to account for those se curities at current market value rathe than at book value. That would hav meant steep losses, thus endangerin the bank's capital position.

WASHINGTON TRIP. Zimmerman says h was unmoved by Pharaon's wealth o inferences that Pharaon might infus fresh capital into CenTrust. "I don think anyone here was particularl swayed by him," he says. So Pharao and Paul went to Washington, meetin with former FHLBB Chairman M. Dann Wall and other bank board members Wall acknowledges the meetings, bu doesn't recall the dates, substance, o results. "I saw my task to be to hea people out," he says, adding that he is sued no directives from the meetings.

Roger Martin, another FHLBB member says he met Pharaon and Paul onc when they discussed a possible bid fo California-based American Saving Bank. "I told them absolutely not," say Martin, who adds that he voted agains approving CenTrust's bond offering be cause of concerns over CenTrust's secu rities-trading practices. Nonetheless, i May, 1988, Zimmerman's superiors i Washington told him that they couldn' force CenTrust to mark down its stock and-bond portfolio. "We were frustrat ed," says Zimmerman. "The reason were logical but not very persuasive."

Investigators are also interested i how Paul and CenTrust came to be part ners with Pharaon in an aborted take over bid for Hercules Inc. The pair along with Italian financier Carlo M Gritti, teamed up in September, 1987, t amass a 4.9% stake in the chemical an aerospace company. According to a law suit filed in New York by Pharao

The numbers outside.



against Gritti, the partnership bought 2.56 million shares of Hercules stock, with Pharaon putting up $43 million of the estimated $145 million cost. The October crash killed hopes of a buyout, and a year later, CenTrust was left with its stock and a $5.5 million paper loss.

Jones, Pharaon's Savannah attorney, suggests that Pharaon was a victim of CenTrust's failure. "Except for the zeros, he was like a little old lady in terms of being a shareholder," Jones says. "He had a very substantial investment in CenTrust, all of which he lost." But U. S. taxpayers figure to lose upwards of $2 billion to bail out CenTrust, a fact investigators are keeping in mind as they look into Pharaon's link to Paul.

By Gail DeGeorge in Miami, with Tim Smart in Washington

THE POSTAL SERVICE

CAN TONY FRANK GET POSTAL WORKERS TO CUT HIM SOME SLACK?

He needs work-rule changes to trim costs, but the unions say 'no way'

BULK OPERATION: FRANK WANTS TO SLASH 80,000 TO 120,000 JOBS BY ATTRITION BY 1995

In one of the wild, impetuous moves that Postmasters General are definitely not noted for, Anthony M. Frank agreed to lampoon himself last April on the TV sitcom *Cheers*. Alas, Frank's cameo role ended up on the cutting-room floor. He's hoping for better luck when he takes center stage in a far more crucial performance: the Postal Service's looming contract talks with four powerful postal unions.

Frank, a former California savings-and-loan executive, came to Washington two years ago with high hopes of putting the U. S. Postal Service's wobbly financial house in order. And he has a lot at stake as negotiations over the three-year contracts covering 664,000 employees open on Aug. 28. A yawning deficit forced Frank to propose a 19% rate increase effective in 1991—even though inflation has only been 13% since the last boost in 1988.

To make up for the hike, Frank promises to keep annual cost increases two points below inflation through 1996—an ambitious undertaking for an outfit whose costs clearly aren't under control. Most of the savings must come from labor costs, which now consume 83% of the service's $39 billion budget. But the unions are expected to resist cost-cutting measures.

If Frank fails to clamp down on expenses, more large mailers may desert the service. Already, Dow Jones & Co. has been forsaking the Postal Service in recent years because of rising rates. "Frankly, we just had enough of it," says Mark Marvaso, director of the company's delivery service. Indeed, the year after the service jacked up its rates, mail volume grew by just 0.4%., down from an annual average gain of 4.9% since 1977. "This is a watershed labor negotiation," says Gene A. Del Polito, executive director of the Third Class Mail Assn.

The Postal Service doesn't plan to haggle over wages. Instead, it will target the unions' cherished work rules, according to Postal Service negotiator Joseph J. Mahon Jr. Although the service is beginning to reap some productivity gains from automation, it needs far larger increases to reach its financial goals. At the top of its agenda are rules that restrict the hiring of part-time and temporary workers. Most postal work comes at peak periods, leaving full-time workers idle for hours. The service hopes such changes would allow it to slash 80,000 to 120,000 jobs through attrition by 1995.

IDLE HANDS. Mahon also wants more discretion to reassign workers to new tasks, shifts, and facilities as automation speeds up some jobs and attrition opens up others. According to a General Accounting Office study, the service achieved only about a third of the savings it expected from automation at 20 sites because managers could not reduce the work force as jobs were eliminated.

Then there's the bane of customers everywhere: long lines at post offices. Frank says he would like to change rules that stop supervisors from pitching in when lines get long. Nor is he pleased with regulations that promote back-room workers to window slots based on seniority. "Is that the best way to get people for public contact?" he asks.

It's clear that the unions will seek higher wages and oppose major changes in work rules. American Postal Workers Union President Moe Biller blames incompetent managers for keeping the Postal Service from scoring larger productivity gains. "The Postal Service has more than adequate flexibility," says Biller.

He's especially incensed by the Postal Service's recent announcement that it wants to hire nonunion contract workers to operate new bar-coding equipment. The service expects this technology to save $4.3 billion over the next decade. Biller contends that union members should be trained to operate these machines. "We will do whatever we can to prevent contracting out," he vows.

If the unions and the Postal Service can't reach an accord, the dispute will go to mandatory arbitration, as it did in 1984. Arbitration usually results in a split-the-difference contract. Even if Postal Service management gets some of what it wants, Frank will face an uphill battle to achieve the cost savings he seeks. What he really needs is a transformation of the culture of the Postal Service, which operates strictly by the book, like a vast, somnolent army. That transformation could take decades—time the creaky Postal Service may not have.

By Susan B. Garland and Mark Lewyn in Washington

The computer inside.

Since buying a computer today is such a numbers game, here's a simple rule of thumb. Look for 386™SX, 386™ or 486™ on the outside to be certain that you have Intel technology on the inside. From the company that invented the microprocessor. The company that has shipped over 10 million 32-bit processors. The same company that's investing over $1 billion this year to make sure the computer inside your computer has the technology, power and compatibility to take you into the future.

intel®

The Computer Inside.™

©1990 Intel Corporation.

The Computer Inside, 386 & 486 are trademarks of Intel Corporation.

EDITED BY HARRIS COLLINGWOOD

MORE GLOOM AT AMBASE

▸ Beleaguered shareholders at AmBase just got two more jolts of bad news. On Aug. 14, the troubled financial-services firm announced that while it had agreed to sell its crown jewel, Home Insurance, to Vik Brothers International, the $905 million deal would probably not yield enough to give investors a promised special dividend. On the same day, AmBase reported a second-quarter net loss of $106 million. AmBase stock tumbled to 2¾ by Aug. 15, a 63% drop since the announcement.

The deal also includes Home Insurance subsidiaries Gruntal Financial and Sterling Forest. Under the agreement, which is subject to regulatory and shareholder approval and a final contract, Vik will pay either $620 million in cash for Home or assume some small portion of AmBase's $730 million in corporate debt says an AmBase spokesman. Vik will also assume a $285 million preferred share issue, $124 million of which AmBase owns and plans to sell in a private placement. When all asset sales are completed, AmBase's holdings will consist only of Carteret Bancorp, a New Jersey-based thrift.

When Ambase put Home and two other insurance companies on the block in February, it claimed that it would use part of the proceeds to give shareholders a special dividend. Now, Ambase concedes that long-awaited reward may not materialize.

GOLDMAN SACHS'S BRAVE NEW WORLD

▸ Under Senior Partner John Weinberg, Goldman Sachs resisted such Wall Street trends as going public and making large bridge loans to companies. But Weinberg's Aug. 14 announcement that he's handing the reins to his two chief lieutenants, Robert Rubin and Stephen Friedman, suggests that changes are ahead for the 121-year-old partnership. It's likely that the new Goldman will expand its operations at a quicker pace.

Expect Goldman, which offered its first equity mutual fund earlier this year, to offer more funds as a means of generating steady revenues. The firm will also step up its successful merger advisory business in Europe and Japan. Since Rubin has a special interest in Latin America, Goldman is likely to play a bigger role there.

ASK NOT WHAT YOUR COHO CAN DO FOR YOU . .

"Send us $3, or this baby salmon will die." Well, the folks at the OreAqua salmon ranch aren't using quite those words, but that's basically the message they're sending. The Oregon company, which is having a hard time meeting debt payments, has hatched a scheme to raise some much-needed funds. In essence, OreAqua has put its 7 million baby Coho and Chinook salmon up for adoption. For $3, you can become the proud parent of a smolt, as the young fish are called. As an incentive, OreAqua will send you an "Adopt-a-Salmon" T-shirt if you take five fish under your wing.

Smolts that aren't adopted will be destroyed, since it's cheaper simply to kill them than raise them to adulthood. But the prospects of adopted fish aren't a whole lot better. OreAqua is releasing all adopted salmon into the Pacific—where, chances are, they'll make some hungry sea lions happy.

RED CARPET FOR THE REDS

▸ The Bush Administration is making good on earlier pledges to Soviet President Mikhail Gorbachev to help rev up business ties between the U. S. and the Soviet Union. President Bush announced on Aug. 13 that he was lifting the ceiling on the number of Soviet businesspeople allowed to live and work in the U. S. The 69-person quota is being abolished.

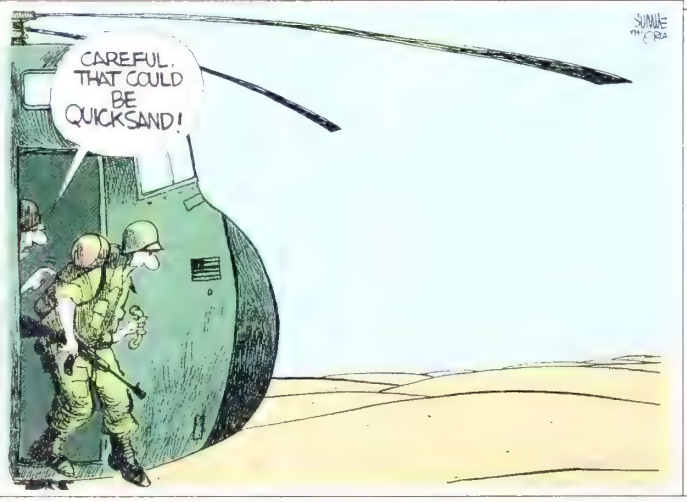
In another goodwill gesture, Secretary of State James Baker has invited Commerce Secretary Robert Mosbacher and 15 top U. S. executives to join him on his next scheduled trip to Moscow. Baker, Mosbacher, and the U. S. business contingent will meet with Gorbachev on Sept. 11. The delegation from Corporate America plans to discuss the economic reforms needed to speed up the pace of U. S. investment.

MOST HOT FUNDS DON'T STAY THAT WAY

▸ You know the boilerplate: A money manager's past performance is no guarantee of future results. Well, that turns out to be the best advice that some funds have to give.

A new study by Wyatt Asset Services suggests that most of the hot funds of the early 1980s flopped in the second half of the decade. The only consistent performers tended to be the losers.

Wyatt simply divided the decade into two parts, 1980-84 and 1985-89, and measured the performance of 410 equity funds in each period. In the first five years, 122 funds outperformed the Standard & Poor's 500 by at least 10%. In the second five, three-quarters of those highfliers trailed the index. Of the 216 funds that fizzled relative to the index in the first five years, less than one-quarter improved in the second five.



CLIPPED WINGS AT USAIR

▸ Sagging revenues and rising fuel prices are starting to take their toll on the airline industry. USAir announced on Aug. 14 that it is curtailing its major expansion program and will furlough 211 pilots starting in September. More personnel cuts are likely. "We are looking at the staffing level of our entire operations," says a company spokesman, who adds that present service will not be affected. The company posted a $113 million loss for the first half of 1990, following a $6[illegible] million loss last year.

EDITED BY STAN CROCK

'T'S TIME TO PLAY PIN THE RECESSION ON SOMEONE ELSE'

It sounds as if George Bush is as angry at congressional Democrats as he is at Iraqi President Saddam Hussein. Frustrated by the budget deadlock, the President exploded n Aug. 14. "I'm going to put the focus where it belongs," he aid, "on the party that controls the U. S. Congress." But this as more than just a sign of White House exasperation. Bush as launching a campaign to spread the blame for a recession at his advisers fear is all but inevitable.

Treasury Secretary Nicholas F. Brady still insists publicly at the Saddamized U. S. economy will avoid recession, conceding only that growth will slip in the second half to an nemic 0.75%. But other Administration aides now privately ay that the economy will probably slide to recession later this year. They beeve that the economy can continue to row only if oil prices drop quickly—an nlikely prospect.

But the Administration is resisting the emptation to pump up growth with new ivestment-oriented tax cuts. Top Bush conomic aides still believe that slashing e budget deficit is the proper fiscal reponse to an impending slump. They're onvinced that a multiyear budget accord ill allow the Federal Reserve Board to ush down interest rates—the most effective step the government can take to boost the economy.

BRADY: GROWTH WILL SLIP, NOT PLUNGE

That's one reason Bush tried to put the deficit back on the olitical front burner. The President believes a budget pact is ore critical than ever in view of the economic disruptions reated by the Persian Gulf crisis. And White House aides are anking on a breakthrough during high-level budget talks ith congressional leaders set for early September.

To get that agreement, Bush aides are turning a cold shouler to business groups and GOP conservatives who argue that far better cure for a slowing economy is a big tax cut rather an the tax increases in the offing. Administration officials re resisting calls for large tax incentives to encourage energy production, although they may back a handful of modest tax breaks for the domestic oil industry. And they are standing firm against broader incentives such as restoring the investment tax credit. The only tax cut on their plate: Bush's longstanding promise to slash taxes on capital gains.

TOO LATE. At the same time, Bush will still accept tax hikes as part of a budget deal, even though that would mean more pain for consumers and businesses. "It has never been our first choice," says one Administration official, "but we're willing to acknowledge there's going to be a significant revenue component in whatever is agreed to."

The trouble is, even with Bush turning up the political heat on Democrats, a budget deal may be too little, too late. So White House operatives have geared up to deflect blame for any recession away from Bush. They've been bashing Fed Chairman Alan Greenspan for months, though the tone of Administration criticism has changed. Until recently, officials blamed Greenspan for increasing the risk of recession by refusing to cut rates. These days, some Bush aides say the Fed's inflation phobia has caused a slump. "They may have already blown it," says one.

Now, the White House has new scapegoats: Saddam Hussein and Congress. Hussein, of course, takes the rap for forcing up the price of oil and provoking a costly U. S. military response. Senate Majority Leader George J. Mitchell (D-Me.) is singled out for criticism by conservatives for his 1989 opposition to a capital-gains tax cut, the magical elixir that, supply siders claim, could have staved off the slowdown. And now, Bush, who has been itching to blast Congress for weeks, has leveled his guns at Capitol Hill.

It's a nice try. But a savvy Washington insider such as Bush has to know that if a recession hits, voters will hold one person responsible: the man in the Oval Office.

By Howard Gleckman and Douglas Harbrecht

CAPITAL WRAPUP

BANKING

Chalk up yet another victim of the crisis in the Persian Gulf: reform of the federal deposit insurance system. Worried about further red ink from thrift and bank failures, the Office of Management & Budget and the Treasury would like to change the current coverage, now set at $100,000 per account. But cutting the government's liability means more risk for depositors, and with oil-war jitters rampant, regulators are skittish about further eroding public confidence in the financial system. The Federal Deposit Insurance Corp. acknowledged the problem on Aug. 14 when it proposed an increase that would boost next year's premiums for the industry by $1.9 billion, or 63%, from current levels.

TREASURY

The Treasury Dept. has a new weapon in its battle with the Federal Reserve Board over foreign-exchange intervention. Preliminary results of a study by the Institute for International Economics show intervention can significantly affect currency changes, as Treasury has maintained. The results, based on public U. S. data and private figures from West Germany's Bundesbank, led Treasury to give the institute never-before-published, daily data on the Fed's foreign-exchange operations.

POLITICS

The line between politics and entertainment often is blurred. Just ask Roger E. Ailes, the combative New Yorker who is George Bush's top media adviser. Ailes, whose bare-knuckle style is legendary among campaign consultants, is preparing to move into television production. Ailes Communications Inc. has already completed work on two half-hour pilots for Fox Broadcasting Co. And Ailes is negotiating with Fries Entertainment, a West Coast film and TV production company, to make several other shows. Can the "Willie Horton Playhouse" be far behind?

NEVER

UNDERESTIMATE

THE POWER

OF CASH.

It's no secret that when we bought
Great Northern Nekoosa, we took on some debt.

Wall Street noticed.

But it's also no secret that we acquired a world-class paper
company with a very large cash flow.

Wall Street noticed.

Add to that our own substantial cash flow, and the picture
gets clearer. Because the simple fact is, the new Georgia-Pacific
will be capable of generating 1.5 billion dollars in annual
cash flow from operations. And when combined with the
possible sale of non-strategic assets, we should retire our debt
far quicker than many expected.

And that's the sort of news all kinds of people notice.
Especially our shareholders.

Georgia-Pacific

INDONESIA: THE HOTTEST HOT SPOT IN ASIA

Jakarta's economy is booming—but is it out of control?

William M. Davidson, principal owner of the Detroit Pistons, is a man of vision. Since he bought it in 1974, his basketball team has rebounded from oblivion to become the national champion two years in a row. Now, Davidson, who is also chief executive officer of glassmaker Guardian Industries Corp., may have picked another winner. After eyeing Indonesia for several years, Guardian has signed a $120 million joint-venture agreement with Astra International Inc., one of the nation's biggest companies, to build a glass plant.

That puts Guardian in what's shaping up as Southeast Asia's next economic hot spot. With a 7% growth rate, a population of 182 million—the world's fifth-largest—and a wealth of natural resources, Indonesia is poised to be the region's new success story (chart).

Last year's record $4.7 billion in foreign investment was nearly matched in just the first six months of 1990. With cheap labor getting scarcer in Malaysia, Thailand, and the Four Tigers, Indonesia's huge work force is a major drawing card for international companies that want to build a significant presence in Asia.

But so far, Corporate America is missing out on much of the action. Memories persist of a stifling bureaucracy that for decades made Indonesia a tough place to do business. Political uncertainties and corruption also scared off many U.S. companies. Only in petroleum, where Caltex accounts for about 60% of Indonesia's production, do Americans have a dominant position.

Asian investors, by contrast, see Indonesia as well worth the risk. The Japanese, who account for a quarter of all new investment, lead the way. In textiles, where Indonesian exports have swelled from just $150 million in 1983 to a projected $3 billion this year, Japanese producers are linking up with such partners as Great River Garment Industries, whose 7,000 workers make clothes under labels such as Arrow, Triumph, and Calvin Klein. Asahi Glass, Mitsui, and Matsushita Electric all are building new plants or expanding, while Marubeni and Sumitomo are each building $20 million industrial parks.

Japan's carmakers have the hottest ticket. Through joint ventures, they dominate Indonesia's burgeoning motor vehicle market and are using the country as a low-cost base for exporting parts. Toyota and Daihatsu have assembly partnerships with the powerful Astra group, a $2.5 billion conglomerate controlled by William Soeryadjaya. Astra sells 47% of Indonesia's cars and most of its motorcycles and tractors. Now, it is building engines for Toyota plants in Malaysia and Taiwan. And annual capacity at its Toyota car plant is being boosted from 75,000 vehicles to 125,000. Astra's other new ventures include producing castings with Japan's Komatsu Ltd. and household appliances with South Korea's Lucky-Goldstar.

The flood of Asian investment is helping Indonesia build new export industries in everything from garments to petrochemicals. Additional funds for expansion are coming from the booming stock market. In July, Indah Kiat Pulp & Paper Corp. raised $347 million in a stock offering as part of a bid to become Asia's largest lumber and paper producer. And in October, timber giant Barito Pacific Group expects to raise $548 mil-

MOTORS, MINING, AND THE MARKET: THE DIVERSITY OF INDONESIA'S ECONOMY MAKES IT A MAGNET FOR FOREIGN INVESTORS—BUT SO FAR, MOST AMERICANS HAVE STAYED AWAY

n of the $11 billion it plans to invest er the next five years.

Indonesian industry is growing so fast it many fear it will choke on its own cess. Jakarta's telephones and roads eady are deluged, and new factories e an electricity crunch if more power nts aren't built fast. The stock exange is racing to train regulators and tall computers to keep up with the rket, whose capitalization has zoomed m $250 million to $7 billion in three ars. And economic planners are desately trying to tighten the money pply to prevent new lending, unshed by sweeping bank deregulation, m fueling double-digit inflation.

Such worries seemed unlikely a few ars ago. Indonesia's vast market and sources have long tantalized foreign-s. But the bureaucracy was indifferent multinationals, if not scornful. The strust stemmed in part from centuries exploitation by Dutch, British, and rtuguese colonists.

Indonesia did an about-face in the mid-80s after the plunge in oil prices sent economy reeling. With a $55 billion reign debt, a 15% annual depletion of l reserves, and an estimated 2.5 million orkers joining the labor force each ear, its technocrats had to find a way diversify exports. The government rew open most industries to private vnership, liberalized its banks, and let reigners buy up to 49% of publicly aded companies. In hindsight, says Inistry Minister Hartarto, "the drop in l prices was a blessing."

It was a boom waiting to happen. hile labor costs are escalating roughout Asia, Indonesia has an averge wage of about $1.25 a day. "Indonea will have a cheap labor supply well into the 21st century," says consultant James W. Castle, chairman of the American Chamber of Commerce in Indonesia. "Nobody else in Asia except China can offer that." Indeed, Indonesia attracted several Asian textile manufacturers who were scared out of China after the Tiananmen Square massacre.

RUMBLINGS OF REFORM. U. S. business runs the risk of missing a lucrative boat if it doesn't move fast. Astra now has 50 joint ventures with foreign partners, for example. But with the exception of Scott Paper Co., which withdrew from a massive timber venture over environmental concerns, Guardian is Astra's first U. S. partner. "U. S. companies just haven't been very interested," says Astra President Theodore P. Rachmat. "It's a pity, really." Frets Harvey Goldstein, chairman of consultant Harvest International Inc.: "America is getting shut out of entire sectors of the economy."

Of course, U. S. companies aren't completely invisible. In big-ticket projects, AT&T is fighting hard for an estimated $1 billion contract to upgrade the telephone system, while Westinghouse and General Electric are among the competitors jockeying for an inside track on an ambitious nuclear-power program Indonesia is contemplating. But outside of oil, new U. S. investment is dwarfed by the billions coming from Japan.

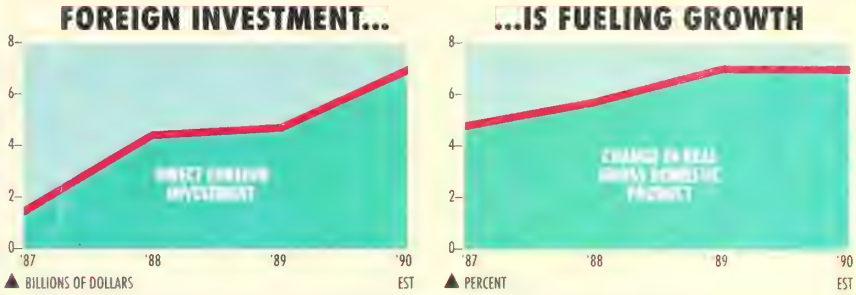
One factor limiting U. S. interest, say Americans in Jakarta, is the cronyism that still pervades Indonesian business. Usually, foreign investors must deal with a designated local partner. Often, that partner is a relative of President Suharto, whose children have used their clout to build multibillion-dollar empires. The fear is that if Suharto steps down when his term ends in 1993, deals struck with the first family will come under attack.

A political transition also could cause social tensions to boil over. The income gap between affluent businesspeople and the millions of impoverished who eke out a living in villages and Jakarta's teeming slums is widening. Moreover, a rising middle class and reform-minded military officers are pushing for political liberalization in a country where opposition is cowed. Although Suharto is still keeping rivals guessing at whether he will stay on as President for another term, most political analysts think he will run again or turn power over to another general.

No matter who's in office, infrastructure promises to remain the government's most pressing worry. "We want to avoid the problems faced by other developing countries where massive bottlenecks are hindering growth," says Economic Coordinating Minister Radius Prawiro. In three years, the government forecasts, Indonesia faces a shortage of 5.8 billion kilowatt-hours in electricity. In July, it awarded a $730 million contract to Mitsubishi to build a 1,500-megawatt power plant, and the government is urging private entrepreneurs to build additional plants.

Still, officials are comfortable with Indonesia's current pace of growth, and most analysts agree that the economy can keep expanding at that rate for the rest of the century. If they're right, Bill Davidson's Indonesian investment may do almost as well as his basketball team has. Then he'll really develop a reputation for being in the right place at the right time.

By Pete Engardio in Hong Kong, with Sally Gelston in Jakarta



DATA: INDONESIAN INVESTMENT COORDINATING BOARD, CENTRAL BUREAU OF STATISTICS (INDONESIA), BW ESTIMATES

Great minds think alike. And our new MultiPersonal™ Computers think just like every computer in your company. Not to mention every human brain that makes your business tick.

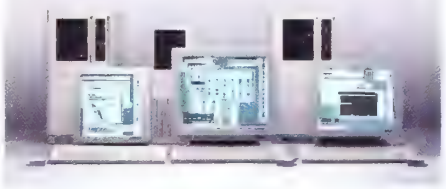
Think about it. When you need information, your brain remembers only the facts, not where you've stored them.

The intuitive, graphical interface of a MultiPersonal Computer works just like your brain. When you need information, you just click on an icon. The MultiPersonal Computer does all the rest: Locates the file. Navigates the network. And puts the file in a window on your desktop, running in its native application.

A MultiPersonal Computer gives you transparent, simultaneous, and secure access to any computer on your network: Mainfram Minis, Macs, and PCs.

And every MultiPerson Computer is built on the vers tile client-server architecture to give users the power they need, when they need it. The power of our M88000* RISC microprocessor for 60- plus MIPS* performance. The power of UNIX* System V

The MultiPersonal Computer integrates the X Window system Motif and Looking Glass in an intuitive point and click interface. And the large-screen Network Display Stations make UNIX as graphical as it is powerful



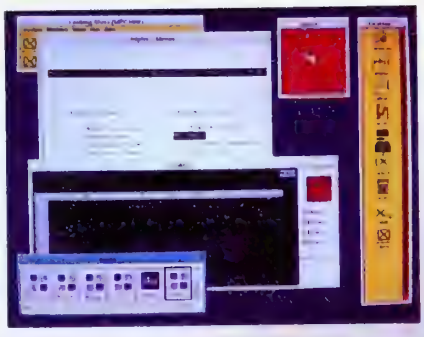
Now You Can Pick Every Brain In Your Company.

MultiPersonal™ Computer

Network Computing With A Personal Touch™

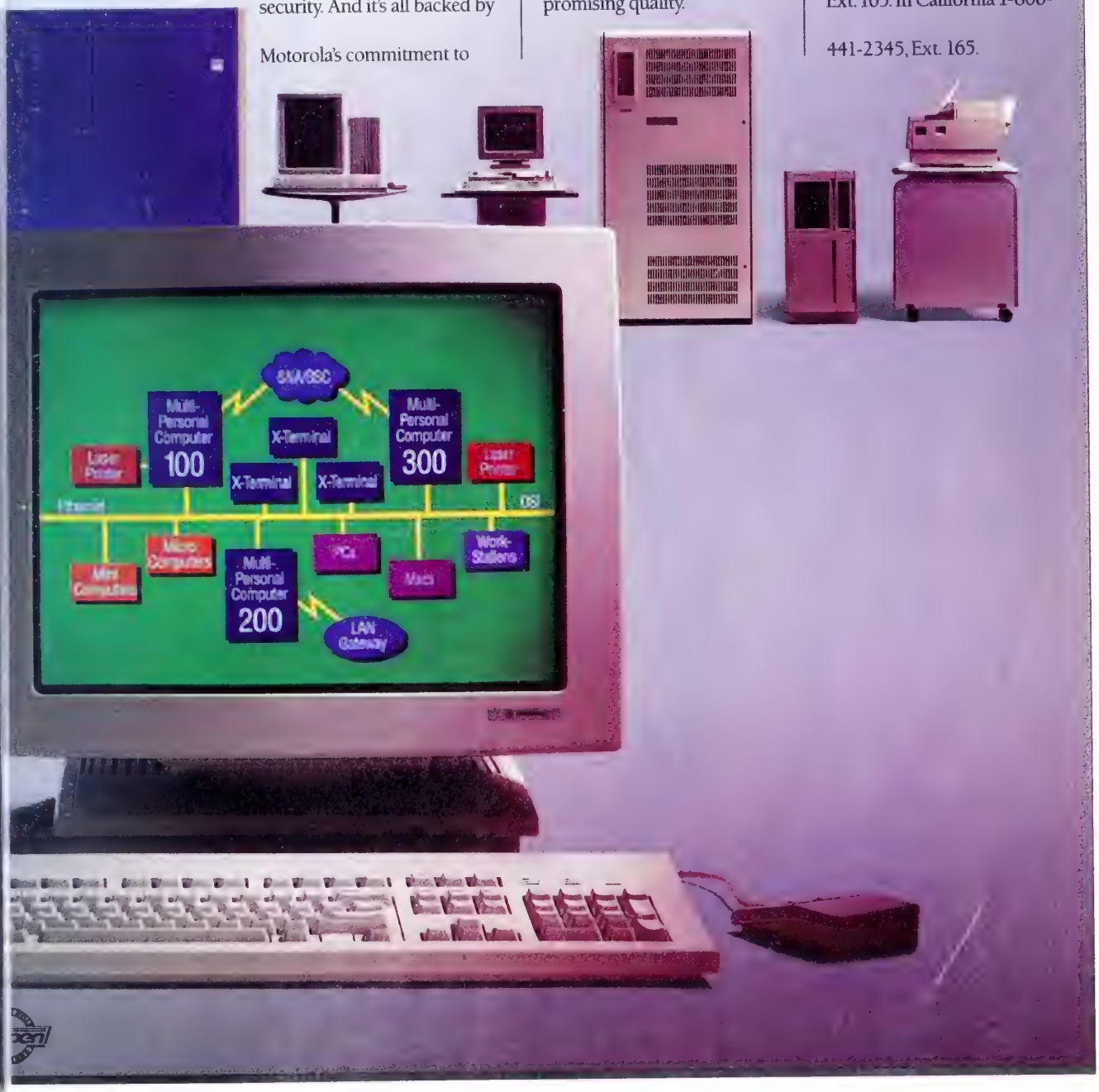
X-Windows,™ for true
ti-user, multi-tasking capa-
ies. Plus the power of
histicated business applica-
s: Uniplex™ office auto-
ion, FrameMaker™ corporate
lishing, and Informix® or
Oracle® relational
databases.

It's the most
cost-effective way
to unify your com-
pany, without losing
control, or sacrificing data
security. And it's all backed by
Motorola's commitment to
open standards and uncom-
promising quality.



If you're looking to link
every mind in your company,
and give everyone more power,
don't just choose any computer.
Pick a MultiPersonal Computer
from Motorola.

Call 1-800-556-1234,
Ext. 165. In California 1-800-
441-2345, Ext. 165.



MOTOROLA
Computer Group

Jeep Cherokee Limited

Eagle Premier ES Limited

You'll Probably Pay More To Have These Vehicles Washed Than You Will To Have Them Financed.

0%*

A.P.R. Financing Now Available On Jeep Cherokee And Eagle Premier.

Or $1000* Cash Back On Jeep Cherokee Limited.

Now, you can choose from 0% financing or $1000 cash back on the legendary Jeep Cherokee, named "Best of the Best" by *4-Wheel & Off-Road* magazine.

Or $2000* Cash Back On Eagle Premier ES Limited.

For a limited time, you can save on the European-inspired Eagle Premier ES Limited, with the most room of any car in its class.**

Jeep

Eagle

Advantage: Jeep and Eagle

770

Limited warranty. See dealer for details. Deductibles and restrictions apply. *Short-term financing for qualified buyers through Chrysler Credit Corporation. Other rates available as length of contract increases. Cash back direct from Chrysler. Limited time offer. See dealer for details. For more information on Jeep or Eagle vehicles, call 1-800-JEEP-EAGLE. **Comparisons based on 1990 published competitive material. Jeep is a registered trademark of Chrysler Corporation. Buckle up for safety.

EDITED BY PETER GALUSZKA

THIS TIME, GORBACHEV MAY REALLY TURN THE ECONOMY UPSIDE DOWN

A series of shocks could await Soviet citizens when they return from their vacations at the end of this month. After years of half-measures toward economic reform, here's a real chance the nation will finally take big steps ɔward creating a market system. President Mikhail Gorbahev is insisting that his presidential advisers and Prime Minis-ɜr Nikolai I. Ryzhkov collaborate with Boris N. Yeltsin, the ew Russian Republic president, to hammer out a new proram by mid-September that could call for the privatization of p to 70% of state industry.

Gorbachev doesn't have much choice. The economy contin-es to deteriorate, new labor strikes loom, and eneral discontent is rising. "It's difficult to say 'hether we can avoid an explosion," says Andrei ɜrlov, deputy chief of the state commission on conomic reform. Moreover, Gorbachev is being ɔrced to move faster because of the rise of politi-ians such as Yeltsin with more radical ideas and ıe growing assertiveness of nearly all 15 Soviet ɜpublics. And Gorbachev has a political opening: [e squelched conservative opposition to quicker ɜform at a recent Communist Party congress.

Now, he has teamed up with Yeltsin on some-ıing that amounts to a 500-day reform plan to ɜplace the failed effort to fix the economy that orbachev's government unveiled last spring. art of the new package includes a treaty that ould redefine the rights of the republics. "What's important bout the treaty is that it's a framework for economic reform s much as anything else," says Jerry Hough, director of the enter for East-West Trade, Investment & Communication at uke University.

BORIS YELTSIN

P FOR GRABS. Under the 500-day program, Gorbachev would nd the government's huge subsidies, amounting to some $230 illion a year. "This is the most problematic provision, because can result in massive bankruptcy of enterprises," says Alek-ɜy N. Boyko, a member of the Supreme Soviet's committee on ɔnomic reform. Most of the nation's factories, stores, and service enterprises would be put up for sale. As old economic monopolies break down, prices would be freed up. The ruble would be sharply devalued and traded for hard currency at expanded government auctions. Even so, ruble convertibility won't be broached until the economy stabilizes.

Already, Gorbachev has taken initial steps. On Aug. 9, he issued decrees banishing ideological taboos on private property and allowing workers, the public, and foreign investors to buy state assets. A government reshuffle is expected by late September, and most of the central planning system, including more than 20 remaining industrial ministries, will be sharply cut back or eliminated. By January, agreement is expected on a plan to grant more economic clout to the republics, eight of which already have declared control over their own resources. Some Western experts believe Yeltsin and Gorbachev have come to a tacit agreement reducing Moscow's role mainly to defense and foreign policy, since Gorbachev has little choice but to give in to the republics' demands.

WINDFALLS. No doubt, all this will prove deeply painful. Soviet economist Vladimir Popov estimates that industrial output could fall as much as 30% in 1991. Unemployment could rise to at least 10 million—8% of the work force—and living standards will plummet.

But by chance, the Soviets are stumbling onto two windfalls that could draw in desperately needed hard currency and bolster reform and morale. The Iraqi invasion of Kuwait has boosted world oil prices. Some estimate that for each dollar rise in the cost of a barrel of oil, an extra $1.5 billion annually flows into the coffers of the Soviet Union, the world's leading oil producer. And good weather has led to what Soviet officials claim will be a record grain harvest, even if 50 million to 60 million tons of grain are wasted as usual. A superstitious nation, the Soviets are taking the hint and beginning to view this autumn as a time to take big steps.

By Rose Brady in Moscow, with Amy Borrus in Washington

LOBAL WRAPUP

EASTERN EUROPE

Before Iraq's invasion of Kuwait, economists had estimated that the wobbly economies of Eastern Europe would have to cough up from $1.5 billion to $2 billion in hard currency once the Soviet Union began charging them dollars for the oil it supplies. Now, if world oil prices remain at $25 a barrel, they'll have to shell out more than $3 billion. Adding to the bad news, several Eastern nations are losing their thriving export business with Iraq because of the U. N. trade embargo.

Poland's energy bill could jump as much as 170%, since it has been paying a rock-bottom $9 a barrel for oil from the Soviet Union, which has been cutting back on shipments. Already, the Poles are scrambling for much more expensive oil from Iran. Polish companies that sold millions of dollars worth of tanks, howitzers, rifles, and ammunition to Iraq are also left in the lurch. So far, they have received only 25% of the Iraqi oil they expected as payment. Likewise, Hungary is still waiting for Iraqi oil shipments as most of the payment for $145 million worth of machinery exports. It has turned to Libya and Algeria for oil. Czechoslovakia faces an extra oil bill of $200 million that could double next year if oil prices remain at their current levels.

Solutions to the squeeze are either expensive or messy. One is switching to costly natural gas. The Soviet Union has vast gas supplies, but they will be priced in dollars. East Germany and Czechoslovakia have coal, though its widespread use has already fouled local environments.

The most obvious alternative is a crash program to conserve, since the region's industries and homes use from 50% to 100% more energy than Western Europe's. On the bright side, the oil squeeze could actually spur privatization efforts. Rather than continuing to prop up fuel-wasting factories with heavy subsidies, Eastern European governments may see sell-offs as an attractive alternative.

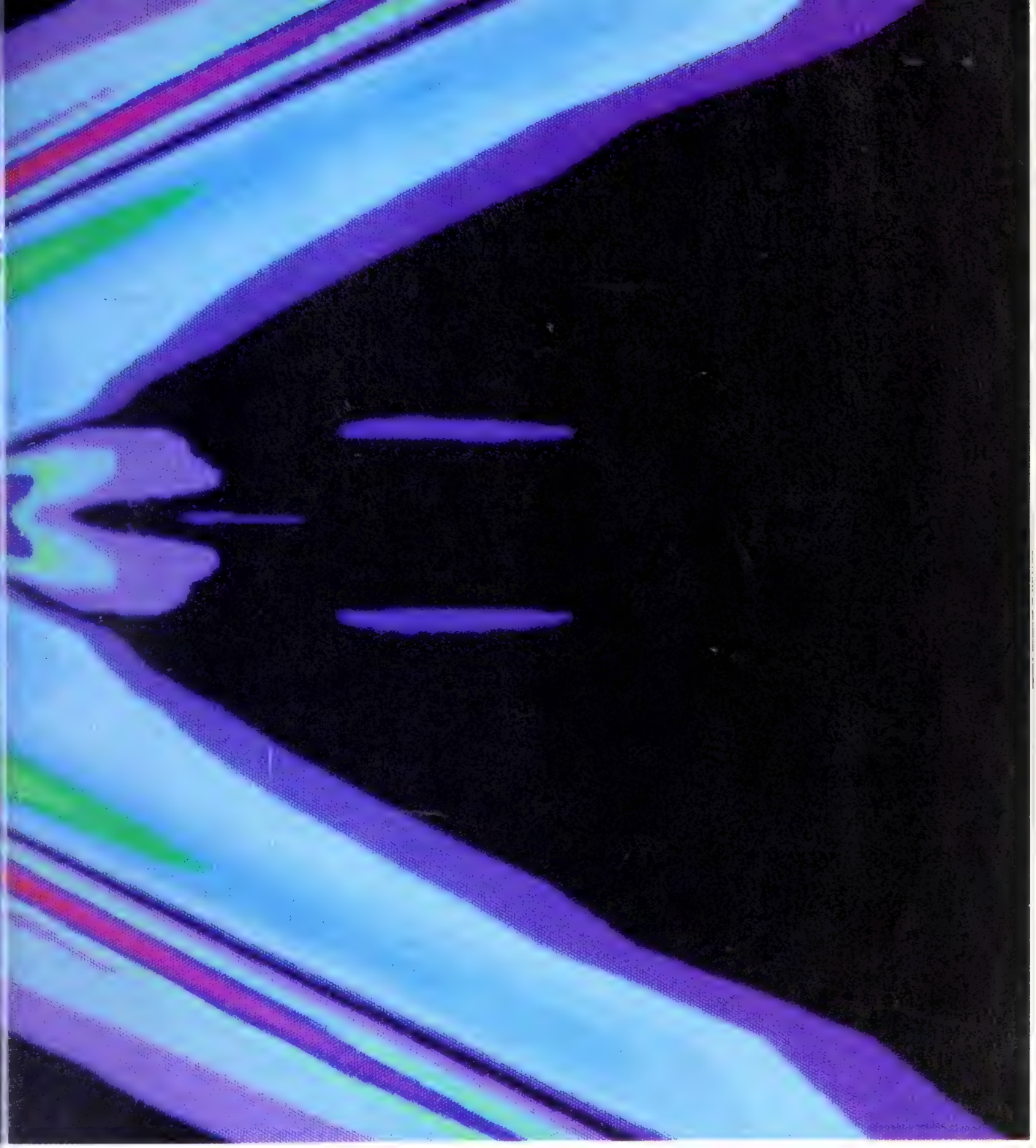
When we developed the world's fastest software, we had other speed records in mind.

Some airplanes now on the drawing boards are so fast, our wind tunnels can't blow air fast enough to test them.

So in order to support the design of faster jetliners, we recently created the world's fastest computer software. It will help us better simulate ultra-high-speed airflow. And quickly analyze aircraft parts for better efficiency and strength.

On a Cray supercomputer, a Boeing team achieved computing speeds of over 1.5 billion calculations per second, nearly quadr pling previous records. Fast enou to earn a prestigious Gordon B Award, computing's answer to the Oscar.

We did it through a new tech nique called parallel processin



ich gets the computer to work
separate parts of a problem at
same time, assembly line fashion.
Sound complicated?
How does it sound to some-
close a deal in Japan over lunch,
n get home in time for dinner?

BOEING

A MOMENT KODAK WANTS TO CAPTURE

At last, a sunny quarter. But the new-product outlook is blurry

Finally, some good news from Rochester, N. Y.: After a year of stark results, Eastman Kodak Co.'s second quarter looked great. The numbers, announced on Aug. 1, were far better than anyone expected—Kodak included.

The midsummer surprise ignited Kodak stock, which rose 4¼, to 42⅞. Wall Street was celebrating an important development: After years of trying, Kodak has taken a different and more effective approach to cutting costs. And Kay R. Whitmore, it seems, is a different and more effective sort of Kodak manager.

Whitmore, who was named chairman and CEO on June 1, recognizes that Kodak simply isn't a growth company, at least for now. So he's downsizing, boosting profit margins by slashing costs, and getting out of noncritical businesses. That won't shake off the slow-growth malaise that has beset Kodak and its basic photography business for years. But after a series of ineffectual restructurings in the late 1980s, Kodak under Whitmore has at last produced the kind of results it needs to make a start on its long-term challenges.

GOOD SCOUT. It's not the sort of leadership Kodak has been used to. Whitmore's predecessor, Colby H. Chandler, like Walter A. Fallon before him, was viewed less as a strategic visionary or hard-nosed operating executive than as a paternalistic caretaker: Through Chandler's tenure, Kodak made changes and slimmed down, but gently. Even after restructurings in 1985 and 1986, the company remained clunky and overweight.

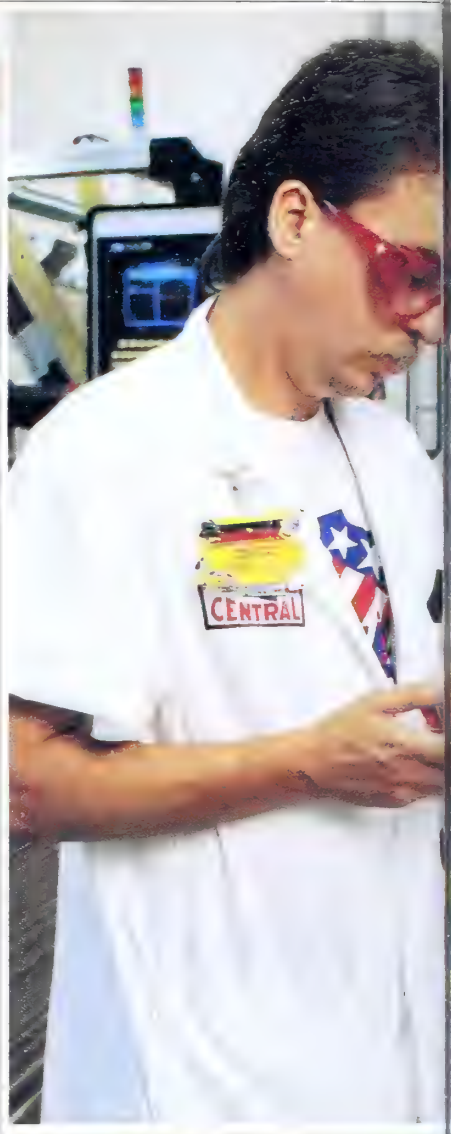
Many observers didn't expect much different from Whitmore, 58. He joined Kodak's film manufacturing operations straight out of the University of Utah and climbed through various managerial posts before being named president in 1983. The career Kodak man wasn't seen as the sort to shake awake a sleepy conglomerate. "He's more a part of traditional Kodak values, a little insular and parochial," said Karen H. Paul, a business professor at Rochester Institute of Technology who has studied the company. Whitmore declined to speak with BUSINESS WEEK for this article.

Straight-talking and modest, the new chairman certainly is no firebrand. Through most of his tenure as president, some investors complain, he was known less for his work at Kodak than as a prominent volunteer in the Boy Scouts. But his work in scouting hinted at what he planned for the company: He saved Rochester's local scout council thousands of dollars with a plan to consolidate its summer-camp operations with those of a neighboring council.

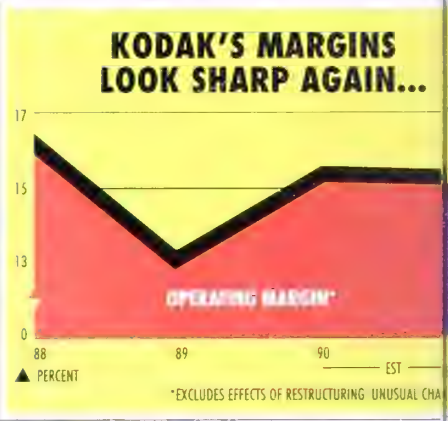
What worked for scouting has done wonders at Kodak. Late last year, as president, Whitmore directed a restructuring that focused operations and lopped 4,500 workers from the payroll, at a cost of $875 million in pretax charges. Most remaining workers accepted a pay freeze this year, and managers saw more of their compensation tied directly to corporate performance. Whitmore sold some operations, too, including Verbatim Corp., a computer diskette maker, and eight smaller information systems units.

Whitmore is even eyeing drastic medicine for Sterling Drug Inc., which Kodak acquired for $5.1 billion in 1988 in a deal

COMPANY MAN WHITMORE CUT 4,500 JOBS



INSPECTING FILM: ELECTRONIC PHOTOGRAPHY



THE UBIQUITOUS YELLOW BOX A RELIC

he planned and executed. Sterling hasn't shown the profits and growth Kodak hoped for, and it faces steep competitive challenges as its industry consolidates. Kodak may soon hedge its bet by putting Sterling into a joint venture.

The results of Whitmore's pruning are showing up now. Revenues for the U. S. imaging business—photo products, processing, and batteries—declined in the second quarter, and overseas sales grew only modestly. But operating profits in the sector hit $481 million, or 24.7% of sales of $1.9 billion, up from 18.9% a year earlier. Kodak's health group, which includes Sterling and the units that make diagnostic products and equipment, showed similar improvement. "This company has tried perennially to cost-cut," says Arieh Coll, an analyst at Fidelity Investments, which has nearly doubled its Kodak stake in the past two months. "It has become evident that this time they are succeeding." Analysts now estimate that 1990 profits will total a record $1.3 billion, up 56% from 1989.

After this year, though, the picture gets blurry. Whitmore's core photography business, which accounts for a quarter of total revenues, has long been stagnant. Kodak argues that new business in such places as Eastern Europe and China will pick up the slack. But those consumer-goods markets are still tiny. "Will all the film they sell in East Germany make up for the U. S.? The answer is no," says Wertheim Schroder & Co. analyst Michael W. Ellmann.

Prospects aren't much better in some other aging or cyclical lines, ranging from copiers to aspirin and chemicals. Promising new prospects are scattered through Kodak's information systems and pharmaceuticals group, but they won't produce revenues for years.

That means Whitmore must buy time. One solution lies in the long-sought grail of electronic photography. In that brave new world, cameras sense light with microchips and record images onto floppy diskettes. Photographers will view their images on a computer screen, perhaps cropping the pictures or improving the color balance before transmitting them to a special printer.

Computerized cameras may stimulate new picture-taking growth, and Sony Corp. and Canon Inc. already make rudimentary electronic cameras. But a mass market is at least a decade away by anyone's guess, including Whitmore's. In a way, of course, that's good news: A sudden popular switch to the new technology would spell disaster for companies rooted in conventional photography.

Already, Kodak engineers have produced dozens of products based on technologies that could have some application in electronic photography. Its Colorsqueeze software, for one, compresses color computer images, allowing more to fit on a disk. And Prism XL diverts a bit of light from a conventional camera to create an electronic version of a picture as it's being made on film, allowing photographers to preview the photo they've just shot. "There's no doubt that pieces of that stuff are parts of Kodak's future," says Frank Romano, a consultant in electronic imaging.

The question is, how? Whitmore has acknowledged that Japanese manufacturers have already won the race to produce much of the hardware electronic photography will be based on. For the most part, Kodak will seek out opportunities that allow it to sell the "software"—sensitized papers and other materials. Kodak is supplying its thermal-printing technology, for instance, to a joint venture with Hitachi Ltd. that will supply printers for Japanese electronic still and video cameras. But the technique produces pictures of comparatively poor quality, and the Hitachi venture is expected to be modest.

Like Kodak's efforts in electronic photography, its huge investment in pharmaceuticals won't pay off for years. Sterling says it may reveal "significant" new treatments for cancer and heart disease within the next 12 months. But they will take years to wend their way through the testing and regulatory process.

BIG CATCH. Meanwhile, Sterling's drug pipeline remains nearly dry, with no major new products due until 1994. These already announced products include PEG-SOD, which limits post-transplant tissue damage. Sterling's current top seller is Omnipaque, which is injected into the body to highlight organs for diagnostic imaging.

> 'This company has tried perennially to cost-cut. It's become evident that this time they are succeeding'

To speed things up, Kodak is considering a joint venture for Sterling. A linkup with a partner might bring Sterling marketable products to plug into its strong distribution network now, providing revenues until Sterling's own drug portfolio kicks in. Whitmore has also said he might sell Sterling if performance doesn't meet expectations. More likely, analysts expect him to sell off other assets, perhaps his barely profitable battery and videocassette operations.

A federal judge in Boston could give some urgency to such plans. Within months, a court will decide how much Kodak must pay in damages to end its 14-year-old patent-infringement dispute with Polaroid Corp. Anything higher than analysts' estimates of $1.5 billion to $2 billion could force Whitmore to sell assets sooner than he would like.

And that's the big catch. Whitmore's cost-cutting is boosting profits, but there's little room for error. Even the most draconian restructuring can't make people buy more film.

By Keith H. Hammonds in Boston

HOW FUJITSU HELPS A BIG HOSPITAL STAY SMALL.

Saint Cloud Hospital in central Minnesota is a regional medical center serving a population of more than 425,000 in a ten-county area covering more than 7,500 square miles. It's a highly progressive, rapidly expanding institution with hundreds of doctors, comprehensive services, and an attitude of intense human concern. Patients are never numbers, they're people. And they are treated like people. For all its size, Saint Cloud Hospital still feels 'small'.

CARING INTIMACY

The hospital has worked very hard to ensure an environment of caring intimacy, developing many special programs and procedures and investing heavily in technologies that free its people to focus on people.

One current investment is in hundreds of portable and mobile cellular telephones to give the hospital instant two-way communications with its on-call staff. The phones have put doctors and nurses in touch as never before, and have begun to find a wide range of unexpected uses for themselves —like letting emergency room patients reassure loved ones directly from a moving hospital gurney.

SELECTED FUJITSU

Saint Cloud Hospital, working with its service provider, United States Cellular, studied a variety of cellular telephone brands before it finally settled on Fujitsu. It chose Fujitsu not only for the quality of its telephones but for the quality of the company behind them. Fujitsu is one of the world's largest computer and communications companies—a high-tech powerhouse that's a major force in the global information revolution. With 115,000 employees, projects completed in a hundred countries, and manufacturing facilities across the U.S.A., it's a company that's many things to many different people. To the people at Saint Cloud Hospital, it's a giant that's helping them stay small.

Gary Gibson of Fujitsu talks with Bill Becker of Saint Cloud Hospital and Joe Salaski of United States Cellular Mobile Telephone Network. United States Cellular, a nationwide carrier which operates the cellular network in St. Cloud, Minnesota, strongly recommends Fujitsu phones. For information call Fujitsu at (214) 690-6000.

FUJITSU

The global computer & communications company.

TURNAROUNDS

JOHNSON PRODUCTS TRIES TO CATCH A NEW WAVE

It may be poised to prosper again from hair 'relaxers'

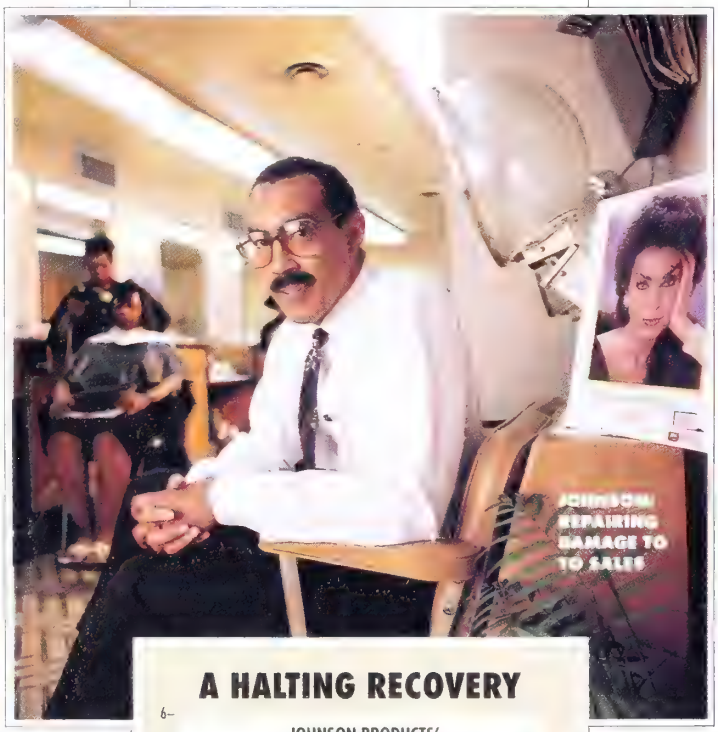
Last February, Eric G. Johnson, chief executive of Johnson Products Co., got a phone call telling him that his persistence had paid off. A rival maker of hair-care products for blacks agreed to sign over all of its brands—four years after Johnson had first made a bid for the business.

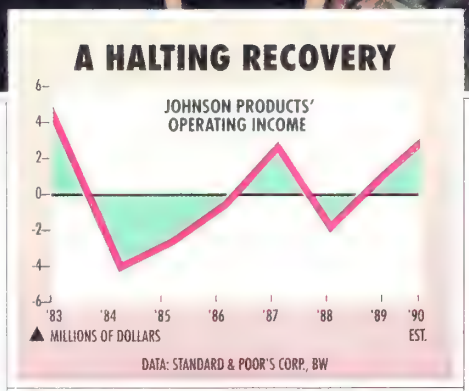
That's the sort of patience Johnson has needed in his bid to restore JPC to financial health. Since succeeding his father as president two years ago, the 39-year-old executive has cut costs and increased production to turn the company around from a $2.3 million loss on operations in 1988. Through the first nine months of its fiscal year ending in August, JPC posted an operating profit of $1.4 million, and it could show profits of more than $2 million on sales of $32 million for the full year. But to keep JPC's comeback on track, Johnson must add new products and woo back customers. Once the top player in black hair-care products, Chicago-based JPC now has just 6% of the market—half the share of cross-town rival and No. 1 Soft Sheen Products Co.

JPC could be in the right place at the right time. Its forte is "relaxers," unguents that take some of the curl out of hair. And relaxed hairstyles are coming back into vogue just as JPC has a new relaxer, Ultra Sheen Supreme, and a new conditioner, Soft Touch. Says one buyer for a drug chain: "They're sitting pretty to capitalize on a resurgence in relaxers."

CURL WARS. JPC has plenty of rivals, though. The hair-care industry is crowded with 20 black-owned companies, as well as heavyweights Revlon Inc. and Alberto-Culver Co. With Soft Sheen's 2-to-1 market lead, JPC will be doing well to become a less distant second. The recent $5 million purchase of M&M Products Co., with products such as Sta-Sof-Fro, a spray-on conditioner, should help some. Johnson says M&M will nearly double his company's retail shelf space.

For the moment, JPC appears to have overcome the damage it suffered when sales fell 36% from 1983 to 1988. The company saw losses in four out of the six years, after JPC acted too late to capitalize on the curly perm, a style made popular by singer Michael Jackson.





Only recently did Eric Johnson get a shot at turning the company around. After working as a sales representative with Procter & Gamble Co., he joined JPC in 1975 and moved slowly upward, even though his father founded the company and Eric had an MBA from the University of Chicago. Eric assumed the top post as part of his parents' divorce settlement last October. His mother, Joan B. Johnson, controls more than 60% of the stock, while his father, George, now serves as a consultant. "An entrepreneur can only take the company so far," says the senior Johnson. "Eric's the professional manager, not me."

NO LYES. Eric could still learn a thing or two from his father, who used a $250 "vacation" loan—no bank would give him a business loan—to sell men's hair straightener in 1954. The loan launched the $1.5 billion black health-and-beauty-aids industry and created what would become the first black-managed public corporation in the U. S. For two decades, Johnson dominated the business he had founded, capitalizing on each trend, from the straightened "conk" of the 1950s to the natural Afro of the 1960s and early 1970s.

Then, in 1975, the Federal Trade Commission cracked down on all hair straighteners containing lye, which can damage hair. Johnson was forced to put dire warning labels on Ultra Sheen, JPC's leading hair relaxer. Some shrewd competitors launched new "no lye" relaxers. JPC responded too late, then failed to pick up on new hair-care trends. From a 1975 high of 80%, JPC's market share in relaxers has dropped to 20%. "We got in first and opened the door for everyone," observes the younger Johnson. "But then somebody closed the door with our keys."

To make the company a contender again, the younger Johnson has slashed payroll by 36% over the past two years, upped factory output by 30%, and launched two new brands to boost sales by 20%. Last year, JPC used the proceeds from a real estate sale to cut its debt in half, to $1.6 million. And while the elder Johnson had 10 top officers, Eric has cut that number to three.

So far, JPC hasn't shown much flair for innovation: Its two new products are variations on the tried-and-true relaxer and pomade. Since fashions change with lightning speed, JPC will have to be ready with something new. That means the company will have to stay on top of trends by nursing ties with salon professionals who are up to date on the whims of black consumers. If it doesn't catch the next trend while it's happening, JPC could get clipped again.

By Teresa Y. Wiltz in Chicago

IT'S STARTING TO SOUND LIKE MERCEDES-BENZ IS ENGINEERED LIKE ONE OTHER CAR IN THE WORLD.

It's curious.

Mercedes-Benz claims to be engineered like no other car in the world. Yet recently, they've spent millions of dollars emphasizing such attributes as safety, durability, and longevity.

Qualities long associated with another car maker.

Volvo.

Which is why, if you've been thinking about buying a Mercedes, you'd do well to consider a Volvo 760. Like all Volvos, the 760 embodies all the traditional Volvo values.

It's tough, durable, and above all, it's built with your safety in mind.

But the 760 also provides a level of luxury found in few cars on the road today. From its automatic climate control to its six speaker high-output sound system, virtually every conceivable comfort is standard.

In short, the Volvo 760 is engineered to be everything a Mercedes is. And, clearly, everything a Mercedes wants to be.

CALL TOLL FREE FOR YOUR CATALOG OF 1990 VOLVOS: 1-800-22[illegible]-9138. © 1990 VOLVO NORTH AMERICA CORPORATION.

VOLVO

A car you can believe in.

MICHEL ROUX: THE ABSOLUT TRUTH

The vodka importer and patron of the arts is trying to make a hit out of a new brand of gin

Years ago, peripatetic Frenchman Michel Roux found himself behind bars in Lafayette, La. The charge: speeding. When Roux, the president of Carillon Importers Ltd., mentioned the incident to a local friend later that day, the man complained to the district attorney about how badly the town had treated its distinguished guest from France. The result: Roux was made an honorary deputy sheriff. "Sometimes you get lucky," he laughs.

Perhaps, but Roux isn't one to rely much on luck. He makes the most of his opportunities. The French paratrooper turned American restaurateur has spent the past 10 years building Carillon into a liquor-importing powerhouse. During his tenure as president of the Teaneck (N. J.) Grand Metropolitan PLC subsidiary, revenues have shot from $22 million to more than $235 million, thanks largely to the success of its Absolut vodka.

Now, the 49-year-old Roux is putting his hard-won marketing reputation on the line with a pricey new gin that he created himself. The product is Bombay Sapphire, a higher-octane offshoot of Carillon's regular Bombay in a sleek ice-blue bottle. Meanwhile, Absolut's No. 1 position among imports is being challenged by Schieffelin & Somerset Co., importers of Tanqueray gin, which last year spent $12 million to launch Sterling vodka.

PRIZE SPIRIT. Sapphire's cool packaging and upscale advertising may not be enough to stir a moribund gin market, though. U. S. gin sales fell 28% in the past decade, and imports are down 15%. Roux says Carillon sold 50,000 cases of Sapphire last year, though industry analysts put the figure closer to 30,000. Even if Carillon hits Roux's projected 500,000 cases by mid-decade—a long shot—it would still be far from the top: Import leader Tanqueray sold 1.3 million cases last year. While sales of regular Bombay have grown more than 60% in the past decade, they still only amount to around 220,000 cases.

Yet counting Roux out would be a mistake. Back in 1978, when he first began trying to sell a short-necked, clear bottle of Swedish vodka, experts gave him little chance of succeeding. For several years he tirelessly crisscrossed the country to chat up wholesalers and bar owners, building grassroots support for the brand. Then, as anti-Soviet sentiment peaked in the early 1980s, a surge of ad spending helped Absolut soar past then-dominant Russian brands such as Stolichnaya. Today, Absolut is the nation's best-selling vodka import, with 2.3 million cases sold a year. "If anyone can [make Bombay Sapphire work], it would be Michel," says Tom Pirko, president of Bevmark Inc., a beverage consulting firm. "He knows how to sit down and play the keys."

ROUX: "SOMETIMES YOU GET LUCKY"

SAPPHIRE'S STAR HAS FAR TO RISE

1989 sales of imported gin, U.S.

Rank	Cases Thousands
1. TANQUERAY	1,395
2. BEEFEATER	800
3. BOMBAY	220
4. BOODLES	45
5. BOMBAY SAPPHIRE	30

DATA: IMPACT DATABANK

The musical analogy is fitting. The profits from Absolut and Grand Marnier liqueur, Carillon's second-largest import, have allowed Roux to fulfill a lifetime goal: supporting the arts. Carillon is a major sponsor of music and ballet productions around the country. Roux, who plays no musical instruments and doesn't paint, also has commissioned a number of unknown artists to create ads for Absolut, giving them a shot at national recognition.

But Roux is also an exacting and tough businessman. "Say our quota is 70,000 cases, and you come in with 71,000," says Shelly Margolis, a distributor in King of Prussia, Pa. "Michel will want to know why you didn't do 77,000."

To get away from it all, each year Roux spends a month with his wife Kitty and their 7-year-old son Maximilien in France, where they are building two homes in a small village 50 miles north of St. Tropez—one for his family and another as a retreat for artists. Home base is split between a condo near Carillon's headquarters and weekends in a Pennsylvania farmhouse, where Roux enjoys cooking, reading history, and pursuing his favorite hobby: hunting wild mushrooms.

Roux learned about food and wine as a boy in Soyaux, a sleepy town in southwestern France near the Cognac region. He went on to earn a degree in hotel management and oenology at the University of Strasbourg in Alsace. After serving as a paratrooper in the Algerian

var, Roux worked in a Paris hotel, where he met an American couple from Texas. Thinking a Frenchman might stand out in the Lone Star state, he took a trip in 1964, found a dishwasher's job at the Rice Hotel in Houston, and moved rapidly up the ranks. "Every Frenchman knows everything about food and love," he says with a laugh, his accent still thick after 26 years in the U. S.

About two years later, he opened La Petite France, one of the first French restaurants in Dallas. Although Roux prospered, the work was hard and the rewards few. Then he met Al Singer, president of Carillon, who was looking for someone who could pronounce the names of the French wines Carillon imported. Roux went to work as a salesman in 1970.

At the time, Carillon's revenues were around $2 million, and Grand Marnier, the orange-flavored liqueur used in cooking and as a digestif, was its best-seller. Absolut changed all that, thanks in part to Roux's clever ads. Featuring art by Andy Warhol and Keith Haring early on, the campaign now showcases works by lesser-known artists, such as photographer Daniel Mahdavian and fashion designer and illustrator Chesley McLaren, whose efforts are currently appearing in a 10-page fashion spread in the September issue of *Elle* magazine.

MONEY MACHINE. Carillon became part of Grand Met in 1980, when the British liquor giant bought Liggett Group Inc. for $570 million. It now imports 45 different products, including Laurent-Perrier champagne and Piat d'Or wines. Roux is coy about just how profitable the business is. But analysts estimate that the markup on Carillon's top brands is well over 100%, which makes the company a virtual money machine.

Not every Roux project is a winner, though. Six years ago, he thought Americans might cotton to a liqueur that combines the fire of armagnac with the sweetness of passion fruit. The result, La Grande Passion, is largely regarded as a dud in the U. S. and abroad.

Roux is determined to make Sapphire work. He sees the brand as a "super premium." He boosted the alcohol from 86 proof to 94 proof and added two extra botanicals, giving it a distinctly fragrant aroma and taste. Knowing that unique packaging helped establish the Absolut brand, he gave Sapphire a blue bottle. But industry experts say he has spent only about $5 million marketing the gin—less than half of what Schieffelin & Somerset has poured into Sterling. His aim: grass-roots support for the brand, not just an ad-generated sales spike. With consumers drinking less but favoring better brands, he might just have a gem on his hands.

By Bruce Hager in Teaneck, N. J.

an environmental commitment

Clean air. The environment. Endangered species.

These precious resources deserve a commitment of the highest priority.
Southern California Edison is making such commitments.
To our customers. To our environment. To ourselves.

We are providing our commercial and industrial customers with alternative clean air electric technologies to protect our fragile environment.
We are also helping to protect the more than 100 threatened or endangered species in central and southern California through our Endangered Species Alert Program.
Protecting the world around us is serious business. And we will keep searching for new ways to make our world a better place to live.

Wildlife photography by Ian C. Tait
Technical photograph by Kerry Carruth

Southern California Edison Company
Together we can brighten the future.

© 1990 BusinessWeek 1990

MUTUAL FUND SCOREBOARD

Insert into Drive A and type MFS. For Monochrome Monitors, type MFS /BW

Compare the Performance of more than . . . 900 Equity and 750 Fixed Income Mutual Funds!

•Simple menu commands
•Operates on IBM or Compatible PC
•Updates monthly and quarterly

FOR SUBSCRIPTION INFORMATION
CALL TOLL FREE 1-800-553-3575
ASK FOR DEPT. HB41

HEIRS

IS ED BASS A VISIONARY —OR SEEING VISIONS?

His offbeat projects inspire devotion—and fierce criticism

He may lack the visibility of his brothers, investors Sid R. Bass and Robert M. Bass. But Edward Perry Bass certainly shares their penchant for thinking big. Out in the harsh Arizona desert, some 30 miles north of Tucson, dozens of uniformed workers are at this moment scampering about in Ed Bass's dream: a three-acre glass-and-steel structure called Biosphere II. Come September, eight volunteers will be selected to go inside and stay there for two years. Their lofty goal: to test a structure they hope will support human life on the moon, Mars, and beyond.

It's not the first time Bass has spent money on an unusual project. He has underwritten a hotel in Nepal, a grass-seed farm and cattle ranch in Australia, and a Chinese junk that studies undersea life. Bass, the billionaire great-nephew of wildcatter Sid Richardson, is also the principal investor in a Puerto Rican rain forest. While some admire Bass's vision, many call his ventures the manifestations of a rich man's eccentricity. "A lot of people think Ed is ahead of his time," offers his lawyer, Dee J. Kelly. Bass, 44, declined to be interviewed.

His supporters, many of whom benefit from his deep pockets, insist he's not frittering away his money. Carl N. Hodges, director of the University of Arizona's Environmental Research Lab and a Biosphere II consultant, calls it "one of the most important scientific projects around." Members of the Bass-funded Space Biospheres Ventures say applications for its discoveries and tourist income will make it a financial success.

Yet many scientists are deeply skeptical about Biosphere II. One of its harshest critics is Bassett Maguire Jr., a University of Texas professor and an expert on closed biological systems. He notes that Biosphere II's scientists have eschewed traditional scientific controls for early experiments, and they have kept their findings secret. Research Director John Allen argues that Biosphere II is a business and shouldn't have to divulge proprietary data. Still, Maguire calls the project's underpinnings "more like a religious tract than a science."

> Bass has funded a hotel in Nepal, a grass-seed farm in Australia, and a Chinese junk that studies undersea life

Others have suggested that Bass and his friends are more like a cult. In the mid-1980s, the *Fort Worth Star Telegram* ran a lengthy article claiming that Allen used mind control to manipulate Ed Bass and his pals. It also reported allegations that Allen engaged in verbal and physical abuse of Bass and others. Although one source later recanted her story, the newspaper stood by the article, which left a lasting impression. Bass and Allen denied the allegations at the time and maintain their denial.

JAZZMAN. Like his brothers, Ed Bass attended Massachusetts prep schools and Yale University. But while Sid and Bob Bass set out to conquer Wall Street, Ed set out to explore the world. After a stint in the U. S. Coast Guard and another at Yale's graduate school of architecture, Ed ended up in a New Mexico commune run by Allen, a metallurgist who also has a Harvard MBA. Bass is still a big wheel in Fort Worth. He built an arts center and a jazz club to ensure Saturday night entertainment, and now he's building an apartment complex and a movie theater. Explains Allen: "Only 10% of his investments are nutty."

People close to Bass say he is quiet and reflective. "Some of his best moments are when he's sitting by a campfire in the Himalayas with the park rangers," says his friend Bruce W. Bunting, vice-president of the World Wildlife Fund. To remind his girlfriend of him when he's away in the Australian outback, which is about half the year, Bass occasionally orders pizzas delivered to her Fort Worth home.

Bass broke ground for Biosphere II—"Biosphere I" is the Earth—three years ago. The T-shaped structure is impressive, looming 85 feet high and 539 feet long. Its official cost is $30 million, but outside experts put the figure at around five times that. That's only part of his investment in biospheres. In May, Bass and his brothers donated $20 million to Yale for an Institute of Biospherics Studies. Asked if Yale is involved in the Bass-affiliated Institute of Ecotechnics, botany professor Arthur W. Galston snaps: "We have absolutely zero to do with John Allen and the institute."

Even so, Bass seems pleased with Biosphere II. "Regardless of what we find in this initial, major, two-year experiment," he says through a spokesman, "there will be tremendous accomplishments." Now, that's positive thinking.

By Jim Bartimo in Oracle, Ariz.

The new Airbus A340 features an on-board maintenance computer that displays details of any malfunction via the Centralized Fault Display System (CFDS). Print-outs too can be provided and the information can even be telemetered direct to the aircraft's destination.

As a result maintenance crews are made aware of the tasks they'll need to perform even before the aircraft has landed.

All this has got to be good news for airlines.

Because in the search to reduce downtime they couldn't ask for more by way of timesaving innovations.

A340

AIRBUS INDUSTRIE

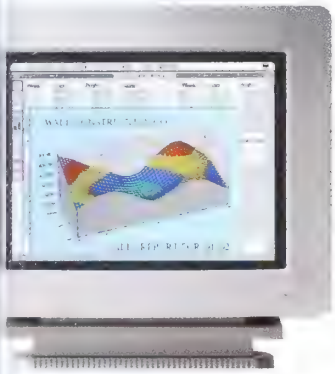
You could buy Macintosh for all the programs it runs.

* This 1990 study was conducted by Diagnostic Research Inc. among Fortune 1000 MIS managers and computer users familiar with Macintosh and MS DOS systems. Call and we'll send you a copy.

© 1990 Apple Computer Inc. Apple, the Apple logo, and Macintosh are registered trademarks and The power to be your best is a trademark of Apple Computer Inc. MS DOS is a registered trademark of Microsoft Corp. UNIX is a registered trademark of AT&T Corp. Fortune 1000 refers to Fortune 500 and Fortune service 500, which are trademarks of The Time Inc. Magazine Company.

But we'd rather you buy it for the way it runs programs.

n industry that talks a lot about standards, Macintosh is the only computer that actually has maintained a consistent standard since its introduction. So not only does our re family of computers work with each other, but a program that runs on our very first Macintosh will also run on our latest and most powerful Macintosh.



ct that the most innovative spreadsheets, ases, and accounting packages have shown t on Macintosh should tell you something the Macintosh system. A system so versatile, even run MS-DOS software, should you need vell as programs written for the UNIX world.

Macintosh printers, scanners, and other peripherals are built around the principle that a person should be able to plug something in, and then start using it. So unlike systems that require you to study lengthy manuals, or flip switches, or take things apart, our peripherals all connect simply and logically. With the result that nothing gets in the way of what a computer is really supposed to do: help you get things done.

Every Macintosh we make comes with built-in networking. So putting a Macintosh network together is as simple as just plugging one machine into the next. On top of that, a Macintosh can also be made part of the most popular PC networks, such as those made by Novell, 3Com, and Banyan.

e any other personal computer, a Macintosh is designed from the ground up to work logically and ively, the way people do. So people actually use it. And they get more done with it. A fact supported by nt study where MIS managers rated Macintosh user productivity an astonishing 37% higher than OS. Which, in practical terms, is like giving people three extra hours in each workday.*

For those impressed by sheer volume, Macintosh® is more than happy to be compared disk for disk with anyone. After all, we run thousands of innovative business programs, as well as MS-DOS and even UNIX® software.

But because Macintosh programs all run in the same graphic and intuitive way, you can start getting results with them much faster. And because they're all written to work together, you can easily move information back and forth between them. In short, Macintosh programs work in a way that lets people get more done.*

Give us a call at 800-538-9696, ext. 450, for the name of your nearest authorized Apple reseller. Because it's not how many programs you have that matters. It's what you can do with them.

The power to be your best.™

DOES GILLETTE KNOW HOW TO TREAT A LADY?

A glance at its personal-care profits suggests it could use some tips

Gillette Co. is one of the world's best marketers of personal-care products for men. In 1901, founder King Camp Gillette made business history by inventing the disposable razor blade and making a fortune on sales of replacements. In 1960, the company introduced Right Guard deodorant, which grabbed 11% of the market in the first year.

This year, Gillette hit the jackpot again with its Sensor blades and razor, whose spring mechanism makes for what the company claims is the closest shave ever. By the end of 1991, profits in blades and razors should total $535 million, up 20% from 1989 on margins of 30% or more. These results are all the more impressive considering that in the past four years, Gillette has twice had to buy back shares to fend off raiders—first Ron O. Perelman and then Coniston Partners. The market has rewarded Gillette by bidding up the stock to a recent 61⅝, up 36% from a year ago.

NO APPEAL. But for all its success in male markets, Gillette has its problems with the opposite sex. At its personal-care group, which includes a slew of lackluster women's products, as well as its popular Right Guard and Foamy shaving cream, results have hardly been stellar: Last year, personal-care products accounted for about 27% of Gillette's $3.8 billion in sales but only 11% of operating profits.

After dropping 20% in 1988, operating profits in personal care fell another 10% last year, to $71 million. "Once they leave the world of blades, the batting average falls way off," says Jack Trout, a partner in the marketing consulting firm of Trout & Ries. Now, Ronald J. Rossi, who took over as president of Gillette North America last month, is refocusing Gillette's energies in personal care.

In the ferociously competitive market for shampoos and skin creams, success requires lots of money, a command of plenty of shelf space, and close attention to buyers—mostly teenage girls and young women—whose brand loyalty is practically nonexistent. Gillette has not developed sustained strength in any of these areas. And rivals include some of the world's top marketers: Procter & Gamble, Lever Brothers, Johnson & Johnson, and Helene Curtis Industries. In contrast, Gillette has 63% market share in razors and loyal consumers.

Gillette's problems aren't entirely of its own making. Buyback-related debt forced the company to hold down expenses and focus most of its dollars on its most promising products, the Sensor system and a men's deodorant, Right Guard Sport Stick. Just developing Sensor cost an estimated $200 million.

This left the company without a lot of money to spend on a host of women's products that generated profits but suffered from low margins and slow growth. The roster includes Silkience conditioner, White Rain shampoo, Dippity-Do hair treatment, Toni home permanent, Aapri cleanser, and Deep Magic skin cream.

These products, which generate about $250 million in sales, had all been hot brands in their time, but by the end of the 1980s, young trendsetting consumers viewed them as drugstore dinosaurs. As 30-year-old consumer Lucinda Linde of Boston puts it: "I used to see [the Toni twins] on my mom's soap operas. I think of [Toni] as outmoded."

The company tried some rejuvenation. By respositioning the 39-year-old White Rain shampoo as a low-price product, it got double-digit growth. And a $13 million campaign last year for Toni Epic Wave, a new home permanent that could be quickly rinsed out, increased Gillette's market share. But with the market for home permanents shrinking, the result was a relatively minor revenue gain overall, according to analysts.

THE CHAMP. The biggest setback was in the attempted relaunch last year of Silkience conditioner. The $20 million campaign featured model Kim Alexis holding a baby chick in her hand. The adline: "Just hatched—new Silkience cleaner, longer conditioners." But consumers were underwhelmed. One consultant says about the campaign: "The key in this industry is constant freshness,

GILLETTE WILL FOCUS ON BEST-SELLERS AND MILK THE REST FOR CASH

WE'RE NOT JUST TALK.

We're Panasonic.

We're digital business telephone systems.

We're the keys to your success.

We're total communication systems. Innovative. Flexible. Expandable. Custom-tailored to fit your needs and save you money. We're made here, in the USA. With high-quality equipment. And a service organization, specially trained to solve your problems. For the authorized Panasonic dealer nearest you, call 1-201-392-6885. You'll get a lot more than just talk.

Panasonic®

and Gillette didn't have enough news."

To make things more difficult, Pert Plus, a rival Procter & Gamble product that combines shampoo and conditioner, got a tremendous boost when *Consumer Reports* chose it as the most efficient product in its category. Pert Plus's market share zoomed to 12% in the fall of 1989 from 7.5% in the spring, according to Kidder, Peabody & Co. Silkience went to 1.7% from 1%, then fell back.

Gillette also tried a European strategy that failed. Two acquisitions in the late 1980s, Spain's La Toja Cosméticos and Italy's Antica Erboristeria, were supposed to supply a line of toiletries and enough salespeople to sell them in a pan-European push. But big rivals such as P&G and Germany's Beiersdorf hogged the shelves of European drugstores, and Gillette couldn't generate new sales fast enough to achieve critical mass.

This year, Gillette's Rossi wants more focus. The European women's products are gone—sold for $140 million to Nobel Industries of Sweden. Ad budgets for Silkience and other women's products have been cut, prompting a 36% rise in second-quarter operating profits for Gillette North America Personal Care. Some distributors resent the cutbacks: "They've ignored us," says Carole Baker, purchasing coordinator for Bailey Drug Co., a division of Cardinal Distribution Inc., which supplies 300 drugstores in Ohio, West Virginia, and Pennsylvania.

'NATURAL DEATH.' Rossi says that customer support is adequate and will improve further when he combines the separate sales forces for personal care and razors into one. Those salespeople will concentrate on all Gillette's shaving products, deodorants such as Right Guard and Soft & Dri for men and women, and White Rain shampoo. The introduction of the Sport Stick has helped increase Gillette's share of the deodorant market to 17.5% from 16% in 1988. As for the other lines, Rossi says that they are profitable, but they're not candidates for future growth: "We'll continue to use profit [from them] to support everything else. Then we'll either let them die a natural death or sell them."

Thanks to this strategy, analysts are already predicting a 48% rise in operating profits this year, to $105 million on sales of $950 million. The improved profits will help Rossi pursue his plans for more tie-ins with Gillette's razor business: Women's razors and shaving gel using the Sensor name, for example, could exploit this powerful new brand.

A sell-off of the slowest performers would produce a smaller operation. But that would be O. K. with Rossi—as long as profits keep going up.

By Geoffrey Smith in Boston

EMERGENCY: MONEY PROBLEMS THREATEN HEALTH CARE QUALITY

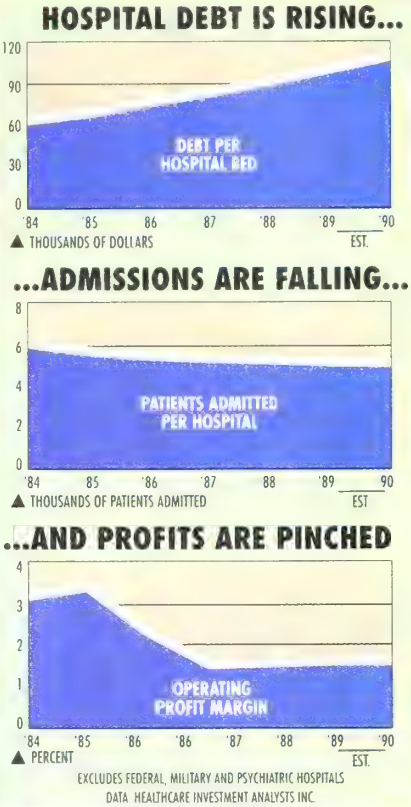
HOSPITALS

HOSPITAL, HEAL THYSELF

Poor management is a chief cause of the current fiscal crisis

Columbia-Presbyterian Medical Center on Manhattan's West Side is a hospital so renowned that patients the world over go there for brain surgery and heart transplants. As a business, though, it ought to be in intensive care. It lost $33.3 million last year, has pledged most of the income from its $167 million endowment against loans to fund operations, and is way behind on paying bills. A new administration has cut the losses, which resulted from a heavy load of charity care, construction cost overruns, and weak management. Still, says Richard Berman, a partner at Korn Ferry consultants and former top New York State health official, "if they don't turn this situation around quickly, quality of care for the Upper West Side will be in real jeopardy."

It's no secret that much of the $239 billion U. S. hospital industry is sick, a condition usually attributed to stingy government reimbursements for treating the poor and elderly under the medicaid and medicare programs. The AIDS and drug crises, which have pushed the annual cost of caring for the uninsured above $8 billion, play a role, too. But as hospitals flirt with disaster, it's clear that the inability to hold down costs, diversify wisely, or keep capacity in line with demand are also major culprits. Now, hospitals are trying to get their management systems up to speed. And the success of these efforts will determine more than which institutions survive: Signs are flashing that if hospital management doesn't improve, the quality of U. S. health care will decline. Says Todd B. Richter, a Dean Witter Reynolds Inc. analyst: "The industry needs to stop bellyaching and focus on the real issues—the management issues."



Indeed, the industry is running out of ther choices. When state and federal overnments began tightening medicare nd medicaid in the mid-1980s, affecting early 50% of all hospital revenue, hospi- ıls shifted costs to patients covered by ɔrporate health plans. Soon, corporate ealth insurance costs went out of con- ·ol. So, employers have revised health lans to boost use of outpatient services nd shorten hospital stays. The result: a uge surplus of hospital beds.

IO CONFIDENCE.' Some 500 hospitals losed during the 1980s, but occupancy ıtes have nonetheless plunged, to an stimated 48.5% from 59.3% just six ears ago. Meanwhile, hospital operat- ıg costs are rising faster than inflation, sign of sloppy management, and mar- ins are razor-thin. Jeff Goldsmith, an ıdustry expert with Ernst & Young, gures 1,500 of the remaining 5,500 [. S. hospitals will close eventually. That 'ould raise occupancy closer to 85%, a ·vel he calls most efficient.

In this shakeout atmosphere, poor ıanagement is a prescription for trou- le. Take the case of Hollywood Presby- ɜrian Medical Center. Based on over- ptimistic occupancy projections in the arly 1980s, it built a 10-story addition— nd then couldn't fill the tower or pay ıe debt on it. Soon, Los Angeles County ealth inspectors began citing "serious eficiencies" with a "potential impact on ıe quality of patient care." Among these were expired drugs on the shelves, shoddy record-keeping, and shortages of routinely used surgical instruments. Although hospital executives say care wasn't affected, in August, 1988, the hospital's medical staff voted "no confidence" in management, contending that cost-cutting could hurt care. Last year, Hollywood Presby was forced to merge with Queen of Angels Medical Center. Now, the combined hospital is struggling with shaky finances.

For hospitals in such a condition, there are plenty of opportunities to skimp on treatment. Take hip replacements. Medicare covers some 75% of all such operations. But it only pays up to $7,600, excluding surgeons' fees—far short of the $10,000 to $12,000 the procedure usually costs a hospital. So, surgeons are being asked to use less expensive implants in older patients and to cut back on hospital recuperation time to keep costs down. Worries Dr. S. David Stulberg, head of Northwestern University Medical Center's Joint Reconstruction and Implant Service: "Eventually, we're going to make some mistakes by kicking people out of the hospital too soon."

> Hospitals are more lax than other industries in billings and collections

Dr. Richard C. Johnston, an orthopedic surgeon who specializes in hip replacements at the Iowa Methodist Medical Center in Des Moines, says he has refused to discharge patients as fast as administrators would like, even though that singles him out for pressure. Many doctors don't resist, however. "Will we send a patient out of the hospital before he's physically strong enough?" asks Dr. Merrill A. Ritter, chief surgeon at the Center for Hip & Knee Surgery at Kendrick Memorial Hospital in Indianapolis. "Probably yes, but the patient is not medically ill. He could probably use a few more days of pampering. But those days don't exist anymore."

DUMPING FACILITIES. At many hospitals, such strategies are an effort to buy time while recovering financially—and for-profits are as bad off as nonprofits. Since 1987, the four largest for-profit chains—Hospital Corp. of America, Humana, National Medical Enterprises, and American Medical International—have all tried to improve their finances by dumping marginal hospitals and bailing out of shaky diversifications.

Others that were too ambitious haven't made it. Dallas-based Republic Health Corp. became known as a marketing dynamo by trumpeting cataract surgery as "The Gift of Sight" and childbirth as a "Miracle Moment." It was forced into Chapter 11 bankruptcy last

year by the ill-advised acquisition of a chain of chemical dependency and psychiatric clinics and a leveraged buyout that was supposed to bring in big bucks after asset sales. Scioto Memorial Hospital in Portsmouth, Ohio, bought a bottling company and a Montana dude ranch. When those soured, it was taken over by the U. S. Health Corp. chain.

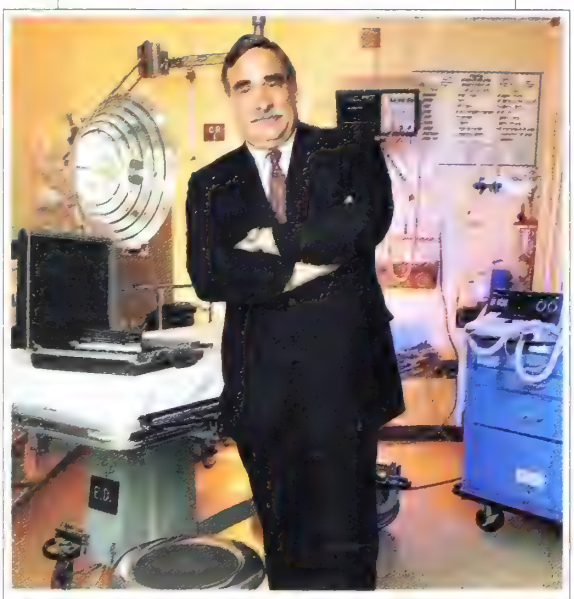
Now, most such dabbling has stopped, and tightened cost management is a top priority. "Hospitals are way below the standard of other industries in terms of getting bills out and collecting them," says Stanford J. Goldblatt, chairman of the board of the University of Chicago hospitals. Chicago, for one, didn't finish installing a budgeting system to track costs closely until 1989. Before then, it couldn't tell the cost of a specific procedure, such as a gall bladder operation. Only some 47% of hospitals purchase supplies through buying groups, which muscle big discounts out of suppliers by making collective purchases. However, Richard W. Osborne, a health care consultant at Arthur D. Little Inc., estimates that 65% will buy collectively by the year 2000.

HMO BLUES. Many hospitals also are dropping or renegotiating deals with health maintenance organizations and other managed-care programs. According to David P. Hunter, a hospital consultant and turnaround expert, hospitals often get into trouble by signing up to handle patients for HMOs at a fixed price. In the rush to keep up admissions, they set the price too low. For example, HealthEast, a troubled hospital chain in St. Paul, Minn., that Hunter now advises, has made renegotiating HMO contracts a key part of its turnaround plan.

In fact, helping hospitals manage costs is becoming a big business. Merrill Lynch & Co., for one, has hooked up with Premier Hospitals Alliance Inc., a for-profit cooperative based in Westchester, Ill., and owned by 46 teaching and research hospitals in 38 cities. The cooperative is developing an accounts-receivable program that will help its members improve their financial performance by converting receivables into cash at a rate below prime. Premier also has a deal with American Telephone & Telegraph Co. to provide hardware and software that will connect hospitals to doctors' offices, simplifying patient admissions and billing.

Hospital-supply companies, such as Baxter International Inc. and Abbott Laboratories, also are jumping into hospital services to help offset tight margins in their regular business. "We can no longer just push products," says Baxter Chairman Vernon R. Loucks Jr. Baxter has forged alliances with IBM, Kraft, and Waste Management to computerize the management systems of hospitals, run their food services, and dispose of their medical wastes. Baxter also offers an inventory system that cuts carrying costs by delivering routine hospital supplies daily.

RADICAL SURGERY. Columbia Presby has reaped big gains from better management. In January, longtime President Dr. Thomas Q. Morris resigned under fire from trustees. They appointed Harry J. Bolwell, a former aerospace and electrical-products executive and hospital turnaround artist, as acting chief executive. Bolwell found the hospital struggling under heavy debt and the burden of charity care. To cut red tape and "hold people accountable," he reorganized it into business units, each with a manager. That, plus cost-cutting and higher reimbursement rates from the state, cut losses to $3.5 million in the first five months of 1990, vs. $23.8 million in the same period last year. Michael J. Bradley, a top health care executive at Thomas Jefferson University in Philadelphia, took over on Aug. 15 and says he hopes to complete the turnaround.



HUNTER: OUT TO CHANGE HOSPITAL MANAGEMENT'S WAYS

More and more hospitals believe that strong medicine is needed. Even though it is profitable, Lakeland Regional Medical Center in Lakeland, Fla., is radically reorganizing. With finances pinched across the industry, says Lakeland CEO Jack Stephens, "it became apparent to us that we needed something revolutionary if we were going to survive."

So last August, the 897-bed facility started testing a team concept similar to that used by auto makers. Patients are looked after by a "care pair"—usually a registered nurse and a helper—from check-in to discharge. The teams are cross-trained in functions ranging from EKG monitoring to housekeeping chores to recording patients' expenses. Patient rooms have computer terminals and minipharmacies so that most of what is needed is close by.

This approach nearly eliminates idle time, which Booz Allen & Hamilton Inc., the consulting concern that developed the team concept, figures is the largest waste of hospital resources. It also can cut staff and paperwork, another major expense. Booz Allen claims that teams can increase time spent with patients by 60% while lowering personnel costs by as much as 40%. At Lakeland's 40-bed pilot unit, per-bed annual operating cost is $12,034, or 9.2% less than at conventionally organized units. Patient satisfaction is up, too. Says Dr. Paul G. Jenko, a surgeon who has patients in the pilot unit: "They feel much less like 'the slab of meat in 23A.' "

Lakeland is doubling the size of its test and eventually hopes to run the entire hospital on the system. Booz Allen has similar pilot projects under way at five other hospitals around the country.

TAJ MAHAL. Many hospitals, though, still try to lure doctors and patients with flashy new facilities. Dr. Ann M. Dunlap, an internist in Homewood, Ill., slams the hospitals in her area for building duplicate facilities, including three new tumor centers and two cardiovascular surgical centers. She also rails against their extensive art collections and what she and other doctors in the area have dubbed the town's Taj Mahal—a green and pink marble professional building that Ingalls Memorial Hospital in Harvey, Ill., built to attract doctors. She contends that spending on expansion, rather than on such basics as hiring more nurses, has hurt medical quality in the area. Robert L. Harris, the hospital's president, calls that "a cheap shot. We're not building at the expense of care."

In any case, such lavish spending is on its way out. The U. S. spends 12% of its gross national product on health care, the highest of any nation. With governments and companies continuing to fight spiraling health costs, the pressure to manage better will continue to build. Doing so won't save all the nation's hospitals. But it may help maintain the excellence of U. S. health care as the shakeout occurs.

By Julia Flynn Siler in Chicago, with Thane Peterson in New York

Introducing the laser printer to buy if price is the first thing you look at,

or the last.

	The New IBM LaserPrinter E	HP LaserJet IIP
Speed	✓ up to 5 ppm	up to 4 ppm
Speed upgrade option	✓ up to 10 ppm	No
Adobe PostScript option	Yes	Yes
Printer emulation	✓ IBM, HP PCL	HP PCL
Std. plotter emulation	✓ Yes	No
Font card slots	✓ 2	1
Std. input paper tray capacity	✓ 200	50
Std. output paper tray capacity	✓ 100	50
Opt. sec. input paper tray capacity	✓ 500	250
Opt. envelope tray capacity	✓ 75	20
List price*	✓ $1495	$1495

*Dealer prices will vary.

Any way you look at it, the new IBM LaserPrinter E gives you more for your money than any other laser printer in its price range.

For the same price as the HP LaserJet IIP, the IBM LaserPrinter E gives you all the advantages of laser quality output 25% faster, with four times the paper capacity, and twice the number of font slots.

Plus the IBM LaserPrinter E is unique in its price range because it lets you customize your printer's speed and features to meet your exact needs. And that makes it the only affordable laser printer that lets you buy now and grow later.

For example, if you decide you want faster printing, you can double the LaserPrinter E's speed. Or if your software requires Adobe PostScript® language, it can give you that creative flexibility, too.

So whether your first requirement is price, performance or flexibility, the new IBM LaserPrinter E should be at the top of your shopping list. See it today by calling 1 800 IBM-2468, ext. 982, for the name of your nearest IBM Authorized Dealer.

The new IBM LaserPrinter E. Suddenly, nothing else measures up.

IBM

IBM is a registered trademark of International Business Machines Corporation HP LaserJet IIP is a product of Hewlett Packard Corporation Adobe PostScript is a registered trademark of Adobe Systems Inc © 1990 IBM Corp

INSIDER TRADING: THE INTRICATE CASE OF ELLIS AG

The SEC probe of dealing in takeover stocks has broadened far beyond a small Zurich brokerage

The frustration has been excruciating—countless roadblocks, blind alleys, and dead ends. It has often seemed as if they were chasing a will-o'-the-wisp. But after nearly a decade of digging, officials at the Securities & Exchange Commission finally appear to be making headway on their mammoth Ellis investigation. The probe focuses on a small brokerage and investment management firm in Zurich named Ellis AG, whose trading in takeover stocks over the years has been remarkably prescient. Some SEC investigators believe that Ellis could be the hub of the biggest insider-trading scheme ever: dozens of stocks, scores of participants in the U. S., Europe, and the Mideast, as well as illegal profits in excess of $100 million.

From extensive interviews with sources in the U. S. and Switzerland, BUSINESS WEEK has learned new details about the SEC probe and the formidable obstacles it still faces. Until some 18 months ago, SEC officials believed that the masterminds of the alleged scheme were Ellis owners Claude Dreifuss and George Dreyfuss. Since then, the SEC has acquired a trove of new information from Switzerland and agency officials now feel that Ellis may have been merely a conduit and a shield for the real ringleaders, chiefly certain prominent financiers and traders in Zurich's powerful, close-knit Jewish community.

According to one knowledgeable investigator, the SEC "has identified many of the key players and where their information was coming from." The SEC declines comment on the case.

'ABSOLUTELY RIDICULOUS.' The probe is focusing on some individuals once associated with Philipp Brothers Inc., the huge international commodities trading firm. Among them are Dutch-born commodities trader Michael J. Floersheim and Marc Rich, who presides over a huge commodities empire in Zug, Switzerland, and is still a fugitive from U. S. tax-evasion charges. Floersheim declined interviews and Rich could not be reached.

Claude Dreifuss, a congenial individual who answers questions about the case with an air of casual amusement, claims the SEC's theories about a vast Ellis network are "absolutely ridiculous." Instead of serving as a pawn of the scheme's kingpins, he says, Ellis' chief business is managing portfolios over which it has complete discretion. He adds that his firm's investment decisions are based on "our own judgment," not on inside information.

The SEC's probe is still largely speculative and circumstantial. Investigators are convinced that significant pre-deal trading in at least 75 stocks was conducted by Ellis. But the SEC seems to have little hard evidence that the trading derived from inside information. Much of its evidence appears to consist of business and family relationships that could easily turn out to be innocuous. The SEC has yet to file any charges. And even if it does, it has very limited powers to inflict penalties on foreign insider traders.

What SEC investigators believe to be a ring has had information sources inside several U. S. investment-banking and law firms active in dealmaking. The Ellis traders' tips have been so good that they have taken positions as much as a month before deals were announced. For many years, they appear to have routed most of their business through Ellis, which in turn executed it through more than a dozen U. S. brokerage firms.

Although investigators believe the El-

WHO'S WHO IN THE SEC'S TRANSATLANTIC PROBE OF INSIDER TRADING

After almost 10 years of digging, SEC investigators believe they have identified many of the key players. But the SEC has yet to file charges, and its case so far appears to be circumstantial. Nearly all of the alleged participants have either denied involvement or declined to comment

- **NEIL SELLIN**
  Chief U.S. broker for Ellis during early 1980s at L.F. Rothschild, Unterberg Towbin; piggybacked on Ellis trades
- **JEROLD M. WEISS**
  An attorney at Wachtell Lipton Rosen & Katz during the early 1980s, suspected of having been a source of inside information for Ellis
- **BOROUGH PARK INVESTORS**
  Trading in takeover stocks by some residents of Brooklyn's Borough Park, mainly through Datek Securities, allegedly paralleled Ellis trading
- **PAUL L. FORCHHEIMER**
  Through his firm, Paul L. Forchheimer & Co., had long-standing brokerage relationship with Ellis; two employees pleaded guilty to charges involving an insider trading scheme linked to Ellis

- **BERNHARD MEIER**
  While at Bahamas-based Bank Leu International, he handled and piggybacke on trading by Dennis Levine, whose purchases tracked those by Ellis; now livin outside Zurich

; traders were most active during the ırly and mid-1980s, they are exploring ıe possibility that some Ellis investors ay be mixed up with recent European sider-trading cases, perhaps through ɜw trading conduits. "There is evidence ı suggest they are still active," says epresentative John D. Dingell (D-ich.), chairman of the House subcomittee on oversight and investigations, hich has also been looking at Ellis.

SEC officials have also been exploring ɔnnections between Ellis and other mar insider-trading rings. Investigators ıve long been intrigued by the remarkɔle similarity between Ellis' pre-deal ırchases and those of admitted insider aders Dennis B. Levine and Ivan F. oesky. So far, no direct links have been ;tablished.

Yet the SEC's probe has uncovered ıbstantial ties between Ellis and a 1987 ıse involving Nahum Vaskevitch, who ın Merrill Lynch & Co.'s mergers and ɜquisitions department in London. In a)87 complaint, the SEC accused Vasketch of disclosing confidential deal inɔrmation to Israeli businessman David ɔfer and accused Sofer of trading on ıat information. The SEC also named, ıt did not formally charge, other invesɔrs as tippees. They included Michael loersheim and Michael Jesselson, a for-er Philipp Brothers employee and son ' retired Philipp Brothers Chairman udwig Jesselson, for whom he works.

At Ellis' Zurich headquarters, traders left a sparse paper trail. Investigators say they operated through havens such as Panama and may have destroyed records

Some SEC investigators believe that Vaskevitch, who had access to information about Merrill's M&A deals in the U. S. for several years, was a key intelligence source for Ellis investors. Sofer, who negotiated a plea agreement with the government, has been providing evidence about Ellis. Vaskevitch, who moved to Israel shortly after the case broke, couldn't be reached for comment.

Despite the apparent progress of the SEC probe in recent months, it has not yet significantly broken through the formidable defenses maintained by the purported malefactors. The Ellis traders left an apparently sparse paper trail, and many documents related to their activities at Ellis may have been destroyed. They traded through entities in such havens of secrecy as Panama and Liechtenstein. They avoided generating incriminating phone records. "This is very sophisticated state-of-the-art insider trading," says an investigator.

When questioned by the SEC and Swiss police, suspected Ellis participants have usually refused to testify or have taken the Fifth Amendment or its Swiss equivalent. Other than David Sofer, none of the alleged participants is known to have cracked. One reason may be the close-knit nature of Zurich's Jewish community. "You can't get into the inner circle," says a Swiss official. "If anybody testified, they would be regarded as a traitor." Major prosecutions could be months or years away.

When they first stumbled onto Ellis in 1981, SEC officials almost certainly had no inkling of the long, arduous road that lay ahead. Looking into pre-deal trading in Marathon Oil Co., the SEC kept running across Ellis' name. Broadening the probe into other stocks, investigators targeted some potentially promising individuals they hoped would lead them to whoever was behind the Ellis trading. But they ran into a brick wall.

FRUSTRATED. One suspect was Alan Ihne, office services manager for Sullivan & Cromwell, the well-known law firm. Ihne had given information on deals to several friends including some with accounts in Ellis' name at Paul L. Forchheimer & Co., a brokerage with a long-standing relationship to Ellis. A Forchheimer spokeswoman declined comment. Ihne and several other tippees, including two Forchheimer employees, pleaded guilty to insider-trading-related charges. But none provided the SEC with broader information about Ellis.

Another figure who caught investigators' attention was Neil Sellin, a broker at L. F. Rothschild, Unterberg Towbin Inc. He was Ellis' chief U. S. brokerage contact and traded many Ellis-related stocks for his own account. When questioned by the SEC, Sellin took the Fifth and was later dismissed from Rothschild. The SEC could find no evidence linking him to a source of inside information. "I executed orders for [Ellis]," Sellin says, "but I knew nothing about any insider trading."

SEC officials were equally frustrated when they examined trading that paralleled Ellis' by numerous investors who lived in Brooklyn's Borough Park section, a predominantly Orthodox Jewish neighborhood. Many had traded through Datek Securities Corp., whose main office is located in Borough Park. Nearly all of the Borough Park traders took the

'AN F. BOESKY
nvestments in takeover stocks, mainly through ondon-based Cambrian & General Securities, ɜly paralleled Ellis activity. Congressional stigators feel information on Boesky trades have leaked to Ellis through Seligmann, ·is & Co., Boesky's main U.K. brokerage

AHUM VASKEVITCH
ded Merrill Lynch's London M&A operations, ısed by the SEC of insider trading in 1987 still under investigation, now living in Israel. ıght by SEC investigators to have been a key ·mation source for Ellis traders

AVID SOFER
sraeli businessman, charged by the SEC with al trading on tips from Vaskevitch, now ɔerating with the Ellis investigation and living ·ndon

CLAUDE DREIFUSS
GEORGE DREYFUSS
Co-owners of Ellis AG, a small firm thought by SEC investigators to be the principal brokerage conduit for a vast network of insider traders but never charged with wrongdoing by the SEC. Dreifuss says allegations of Ellis' complicity are "ridiculous"

- **MICHAEL J. FLOERSHEIM**
Runs a commodities trading firm in Zug, cited by the SEC as a participant with Sofer in the Vaskevitch scheme, thought by SEC investigators to be a key player in the alleged Ellis network

- **MARC RICH**
Believed by SEC probers to be part of the alleged network, perhaps through his commodities empire in Zug; a fugitive from U.S. tax evasion charges

- **ALBERT DREYFUSS**
Brother of Ellis co-owner George Dreyfuss, handled Ellis trading during the late 1980s while a broker at the Basel office of Dominick & Dominick, later left the firm

AMONG THE WHO'S WHO

▲ LEVINE: THE ALLEGED RING'S TRADES MIRROR HIS OWN

▲ BOESKY: WAS HE AN INDIRECT SOURCE FOR ELLIS TRADERS?

▼ SOFER: BREAKING THE WALL OF SILENCE BY COOPERATING

▲ SARASIN: HIS FIRM ONCE OWNED ELLIS

Fifth or denied knowledge of Ellis. And none was accused of wrongdoing. Datek officials did not return phone calls for comment.

The most important figure investigators focused on was Jerold M. Weiss, an attorney at Wachtell, Lipton, Rosen & Katz, which had been involved in numerous deals in which Ellis investors had traded. Some SEC staffers became convinced that Weiss was a prime supplier of tips to Ellis. After leaving Wachtell, he went to work for a California nursing home company, headed by his uncle, whose major outside stockholder was Ellis. But the SEC could find no evidence of illegality by Weiss. Asked to comment, Weiss says: "I don't want to confirm or deny anything."

If the case was going to be unraveled, SEC investigators realized, it would have to be done in Switzerland. In 1984, the SEC began requesting Ellis documents from the Swiss government under a new pact with the Swiss Bankers Assn. that permitted exceptions to bank secrecy laws. But the initial requests were rejected on the grounds that the pact covered only banks, not brokerages. Some SEC staffers suspected the rejection was engineered by Alfred E. Sarasin, then the influential head of the Swiss Bankers Assn. and senior partner of A. Sarasin & Cie., a Swiss bank whose partners owned Ellis. While no evidence has emerged, some investigators have long suspected that Sarasin may have been a chief architect of the alleged Ellis ring. A Sarasin spokesman says Sarasin was unaware of any insider trading at Ellis and fully cooperated with the SEC.

Following extensive publicity of the Ellis probe in 1984, Sarasin sold Ellis to Claude Dreifuss and George Dreyfuss, who had been its managers. Meanwhile, a new SEC request for documents filed under an earlier pact with the Swiss government that did not involve the bankers association was approved by the government. But Ellis and several of its clients vigorously challenged the government's decision with a flurry of legal maneuvers. It was not until 1988 that the SEC finally gained broad access to Ellis' records.

USEFUL LEADS. But they have turned out to be less than a mother lode. "Ellis' bookkeeping was not very professional," says Zurich District Attorney Peter Cosandey, who oversaw the production of the documents. Trades were not recorded contemporaneously but weekly, even monthly. Many documents required by Swiss law, such as account-opening forms, were missing. The names of clients that were disclosed tended to be offshore corporations, especially in Panama, or lawyers serving as nominees who claimed that attorney-client privilege barred them from providing further identifications. "The crucial stuff was probably destroyed years ago," frets one investigator. Ellis could not be reached for comment on these allegations. Still, the material has been providing useful leads. The SEC is now getting information from Swiss banks on numerous names mentioned in the Ellis records.

The new leads might provide further evidence of the tantalizing interactions that investigators believe exist between Ellis and other insider-trading rings. Parallels between Boesky's and Ellis's trading are especially striking. Of 53 takeover stocks in which Ellis traded before deal announcements, according to an analysis by the House oversight subcommittee, Boesky took pre-deal positions in 35. The subcommittee has been looking into the possibility that the link might be Robert R. Harris, senior partner at Seligmann, Harris & Co., which handled most of the trading by Boesky's foreign operations. Harris was very close to Boesky professionally and personally. The subcommittee staff suspects that Harris may have communicated information about Boesky's trades to Ellis participants. Harris denies the allegation.

Harris also could be the link between Dennis Levine and Ellis, subcommittee staffers believe. Investigators have long theorized that intelligence about Levine's trades, which were based on in-

RICH: HE MAY HAVE DONE BUSINESS WITH ELLIS

FLOERSHEIM: A LONGTIME SOFER ASSOCIATE WITH TIES TO ELLIS

VASKEVITCH: CHARGED WITH INSIDER TRADING

DREIFUSS: AN ORIGINAL TARGET OF THE PROBE

le information, traveled to Ellis via ernhard Meier, a broker who handled evine's trading at Bank Leu Internanal Ltd. in the Bahamas. Meier is the rget of outstanding SEC insider-trading arges. Since Boesky traded on Lene's information, subcommittee staffs reason, any communications between arris and Ellis about Boesky would use Ellis' trading to rallel Levine's.

SEC investigators have en most intrigued by nnections between Ellis d the Vaskevitch case, d they have recently covered documents ggesting that Ellis, hich could not be ached for comment, ay have made potential- incriminating payents to Vaskevitch rough the Zurich anch of London's oyds Bank PLC.

URPRISE. Vaskevitch's alleged tippees so had dealings with Ellis, most notay Michael Floersheim, who until 1984 n Philipp Brothers' office in Zug. Acrding to an SEC document, Floersheim as a "longtime associate" of David ofer, Vaskevitch's chief tippee. Alough the SEC filed no charges against loersheim, a 1985 commission filing shows that he was the "beneficial owner" of all the shares of Plenmeer Ltd., a defendant in the SEC complaint, through which Sofer conducted much of his illegal trading. Floersheim, who refused to give testimony to the SEC, also has had business dealings with Ellis. "I know him very well," says Claude Dreifuss. Dreifuss told the SEC that he is close to Marc Rich, who SEC investigators believe has been an active participant in the alleged Ellis network. Rich has had business dealings with Ellis, which has conducted an active commodities business. SEC investigators are also exploring possible ties between Ellis and Ludwig Jesselson. Jesselson says that he has had no dealings with Ellis.

> The SEC could go after U.S. members of the alleged ring, but more important figures in Europe would be tough to prosecute

Vaskevitch has refused to talk to the SEC. But Sofer became the first witness with knowledge of the Ellis traders to break the wall of silence maintained by the other participants. But he has not quite been a Rosetta stone. One source says he either lacks detailed knowledge of the Ellis ring's inner workings or isn't telling everything he knows. Still, he has apparently provided important insights on some key Ellis traders.

Investigators are actively exploring whether some Ellis traders may be operating through new outlets. The oversight subcommittee has found evidence of pre-deal takeover trading as recently as 1988 through a Swiss office of Dominick & Dominick Co. The trading, by two Panamanian corporations linked to Ellis, was handled by George Dreyfuss' brother, Albert. Albert, says Claude Dreifuss, was forced by Dominick to resign after refusing to give testimony to the SEC. Dominick officials could not be reached.

'LAUGHING.' In searching for Ellis footprints in the wave of recent European insider-trading cases, the SEC has been examining Finacor Anstalt, a financial institution based in Liechtenstein. Last November, the SEC alleged that Finacor conducted illegal trading in call options for Combustion Engineering Inc., which announced a merger agreement with Swiss-based ABB Asea Brown Boveri (Holding) Ltd.

During SEC questioning, Peter Ritter, Finacor's chairman and a Liechtenstein attorney who was not accused of wrongdoing, denied knowledge of the Combustion trades. But he did say that he was the sole board member of the Acaga Foundation, which had an account at Ellis and traded in takeover stocks. One of the individuals involved in setting up the foundation was Michael Floersheim.

Even if SEC investigators break the

(CLOCKWISE FROM LEFT) PHOTOGRAPHS BY KERN/LOOK-AT, ABBAS/MAGNUM

alleged Ellis ring, the results in many ways may be far from satisfying. The SEC could effectively prosecute the American participants. But the most important Ellis traders appear to be overseas. The SEC can file charges against foreigners and get U. S. courts to levy financial penalties. But unless a foreign defendant has U. S. assets that can be seized or travels to the U. S. where judgments against him can be enforced, "there is precious little the government can do," says securities lawyer Harvey L. Pitt. The SEC has yet to persuade the Swiss government to enforce a judgment from a U. S. court or prosecute a Swiss citizen for insider trading in the U. S.

But for the long-frustrated and often dispirited SEC investigators, there may well be other rewards. "They're laug ing at us," concedes one individual wh chased them for years. "They think we never get them." If the SEC cracks th case, Ellis traders won't be laughin anymore. And for some of their purs ers, even that would be a big victory.

By Chris Welles in New York and Dea Foust in Washington, with Neal Sandler i Jerusalem and Rick Melcher in London

THE CRACKDOWN ON INSIDERS ABROAD

The Securities & Exchange Commission's splashy crackdown on insider trading may have curbed many of the homegrown abuses that pervaded Wall Street in recent years. But the agency has been decidedly less successful in rooting out foreign crooks. Indeed, a 1988 congressional study concluded that formidable barriers overseas discouraged the SEC from pursuing more than two-thirds of the 229 cases of suspected illegal foreign trading in U. S. securities in the preceding two years.

Now, however, there are signs that the SEC is bearing down on foreign abuses. Since last December, the agency has beefed up its international investigation staff and negotiated cooperative accords with regulators in Japan, France, Luxembourg, and the Netherlands. The pacts are intended, in part, to make it easier to gain access to private records in those countries. What's more, the commission is using a controversial legal maneuver to freeze the trading accounts of foreign investors at the first suspicion of insider trading.

ESCAPE ARTISTS. The SEC has brought charges against foreign traders in two of the past year's largest transatlantic deals. The agency also filed suit after looking into one of the biggest U. S. mergers so far this year, GTE Corp.'s $6.2 billion purchase of Contel Corp. (table).

While the get-tough campaign underscores SEC Chairman Richard C. Breeden's interest in the globalization of markets, it also reflects the mounting problem of insider trading by foreigners. The explosion in electronic trading has helped traders cover their tracks beneath Byzantine paper trails. Already, abusers are adept at hiding behind foreign bank secrecy laws or using shell companies to disguise their identities.

And as soon as regulators make some headway in one nation, inside traders merely find a more hospitable environment. Defense attorneys say Switzerland's decision to adopt U. S. insider-trading standards has produced a drop-off in the number of cases against Swiss traders. But complaints against investors in such burgeoning havens as Monaco and Liechtenstein, which maintain strict privacy laws, are on the rise.

As part of its crackdown, the commission is increasingly resorting to hardball tactics. In recent cases, SEC attorneys have dashed off to court to freeze foreign investors' Wall Street accounts at any sign of suspicious activity. By having the courts block withdrawals from a customer-trading account last November, for example, the SEC was able to finger a trader in Liechtenstein who bought heavily into Stamford (Conn.)-based Combustion Engineering Inc.'s stock options. The purchase took place shortly before the company announced a merger with Switzerland's ABB Asea Brown Boveri (Holding) Ltd. The SEC says it expects to file charges shortly against an ABB director.

But critics contend that these preemptive strikes smack of discrimination. When it comes to U. S. citizens, courts generally require the SEC to produce convincing evidence of wrongdoing before freezing accounts. "It raises profound constitutional and policy questions when there are hundreds of individuals trading in a stock, and you only sue the foreigners," says defense attorney Andrew J. Levander.

SO LITTLE TIME. Opponents of the commission's tactics won a victory on Aug. 3, when an influential federal appeals court in New York City extended a five-month freeze on two trading accounts controlled by foreign firms but gave the SEC just 30 days to bring its case to trial. That's unlikely given that the SEC hasn't yet identified the individuals who own the account. Associate SEC Enforcement Director Joseph I. Goldstein says the agency now faces "a very, very difficult burden."

The SEC says that without a hold on assets, foreign traders would abscond with their booty—particularly on options trades, which clear overnight—before the SEC can make a case. The freezes are "unfair," says John H. Sturc, a former SEC associate enforcement director, "but it's an unfairness born out of necessity."

By Dean Foust in Washington, with Michele Galen in Chicago

THE SEC GETS TOUGH ON FOREIGN INSIDERS

NOV. 15, 1989 COMBUSTION ENGINEERING The SEC sues investment firms in Liechtenstein, Luxembourg, and the Cayman Islands, charging illegal trading in Combustion before Switzerland's ABB Asea Brown Boveri disclosed plans to buy the company

JAN. 17, 1990 RORER GROUP Five European and Middle Eastern investment firms are sued by the SEC after allegedly buying shares in Rorer before the Jan. 15 bid from French pharmaceutical giant Rhone-Poulenc. One settled by disgorging trading profits. Charges were dropped against two firms but are still pending against the other two

JULY 13, 1990 CONTEL The SEC files suit against 12 West German and Swiss traders, alleging that they bought shares of Contel shortly before GTE's July 10 announcement that it was acquiring the telecommunications firm

JULY 23, 1990 KAY JEWELERS The SEC discloses that it is investigating suspicious trading in Kay Jewelers that occurred before Britain's Ratners Group announced plans to buy the company on July 2. No charges have been filed

DATA: SECURITIES & EXCHANGE COMMISSION, BW

When the first King Air Model 90 rocked it wings at spectators below, benefits of general aviation opened up for a new class of business travelers. Suddenly, executives who till then had settled for a piston twin could step up to pressurized turboprop efficiency, speed, comfort and—above all—Beechcraft quality and reliability.

King Airs have blazed many a business trail since then, and today's new enhanced C90A reflects the experience of all that went before. But aside from the new pitot cowls and obvious cosmetic changes, the startling evolution of the C90A might not be apparent. Here's the C90A today:

- Max cruise boosted to 247 KTAS, up 12 knots from the latest predecessor and a full 19 knots from the original Model 90.
- Pressurization increased to provide an 8,000-ft. cabin at 23,000 feet.
- Payload upped so you can carry a pilot, four passengers, full fuel, and more than 100 pounds of baggage.
- New hydraulic landing gear. Quieter, smoother, more reliable, easier to maintain.
- New pitot cowls increase ram air efficiency by 30%. Air intake heated constantly by engine exhaust to prevent icing.
- New fail-safe main wing spar tension member with redundant load paths and clevis fittings.
- Cockpit layout redesigned for smoother single-pilot operations.
- Electronic HSI, rudder boost, and autofeather standard features; long-range navigation system available.

The magazine AOPA Pilot noted that the C90A has outlived all other turboprops in its class and summed it up: "An airplane able to carry passenger loads at a comfortable altitude, withstand most icing conditions, avoid severe weather, travel over 1,000 nm on a single fuel load, hold a great deal of value in the used marketplace and still be reassuring to fly is a winner indeed."

For more information, call 1-800-835-7767, Ext. 7165 (in the U.S. and Canada). We'll put together a package for you and mail it the same day. We'll even fax it, if you prefer. Specialized data relating to your mission profiles will take a little longer. Give us a call today.

Beechcraft. Where new ideas take flight.

Beechcraft
A **Raytheon** Company

INVESTMENT BANKING

ALAS, POOR PHILIPP BROTHERS . . .

Salomon's once-mighty commodities unit is hemorrhaging cash

Once, Philipp Brothers Inc. had a towering reputation. Few trading companies could equal its international network of some 50 offices around the world. The secret of its success was an uncanny ability to buy raw materials from foreign producers at a discount, then sell them abroad or to U. S. companies for a handsome profit. The firm was so powerful that it even acquired Salomon Brothers Inc. in 1981. "Those were sure the good old days of Philipp Brothers," says a former executive. "But look at the company now."

Indeed, Philipp Brothers—which became the commodity-trading division of Salomon in 1983—is in shambles. It recently posted its sixth consecutive money-losing quarter and lost a hefty $83 million in the first half of 1990 alone. Salomon would like to sell the business, "but it's likely that nobody will want to buy all of it," says one analyst. In any event, Salomon says it has begun "a major repositioning and downsizing" of Philipp Brothers that is expected to result in various trading operations being closed or transferred to either Salomon's securities or energy units. And layoffs may be widespread among Philipp Brothers' 700 employees. Salomon won't give any details about its plans, but insiders say Philipp Brothers will sell or abandon trading of some agricultural commodities and metals.

COLD COCOA. Parent Salomon says that the woes of its commodity unit will force the firm to take a charge against pretax income of as much as $200 million. All or most of the charge is expected to show up in Salomon's third-quarter results, wiping out a large portion of its overall gains.

In the second quarter of 1990, Philipp Brothers lost $62 million—the biggest deficit since Salomon began breaking out its results. In a document filed recently with the Securities & Exchange Commission, Salomon reported that "adverse trading results in cocoa and certain other agricultural products were the principal reasons" for the commodity division's big loss.

The debacle at Philipp Brothers has already hurt Salomon's earnings this year. In the first half of 1990, Salomon's booming securities segment, which mainly trades debt and equity instruments around the world, had record pretax net income of $429 million. And Salomon's energy segment earned $53 million.

Philipp Brothers' downfall can be traced to the demise of its commodities-distribution empire. The company had been receiving a lucrative fee of about 5% for marketing the natural resources of foreign producers, ranging from bauxite in Jamaica to nickel in the Philippines. And for decades it had a stranglehold on the business. But beginning in the late 1970s, its franchise eroded, and its profit margin shrank markedly. First, Marc Rich & Co. wooed away many of Philipp Brothers' longtime clients by settling for a 2.5% fee. Then, J. Aron & Co., now owned by Goldman, Sachs & Co., and others swooped in and squeezed Philipp Brothers' profits further.

The nature of Philipp Brothers' business had begun to change. With profits dwindling in its core business, Philipp Brothers started taking more risks by increasing the size of its commodities trading. But the company's failure to trade successfully in copper, cocoa, sugar, and coffee ultimately led to its misfortunes. Traders say losses in those four commodities alone have totaled more than $100 million since 1988. Philipp Brothers traders "have demonstrated an inability to do their business well quarter after quarter," concedes a Salomon official.

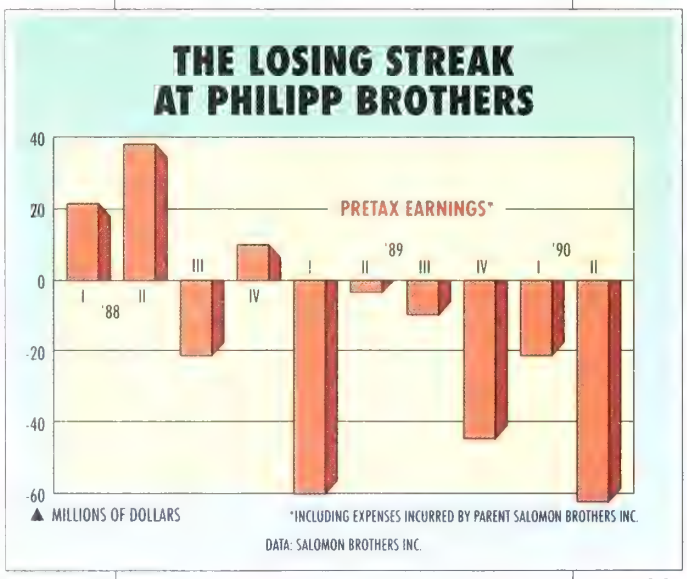
Philipp Brothers' recent difficulties in copper trading, Wall Street traders say, was symptomatic of its failure. In the first quarter of 1989, its traders were long thousands of tons of copper, believing that the metal's price would continue a climb that had begun at the end of 1988. But when copper production increased in early 1989, prices fell sharply throughout the first quarter. "Philipp Brothers traders got greedy," says a former employee. "They should have hedged copper by buying put options. Instead, they just stayed wildly long." Philipp Brothers lost a total of $60 million in the first quarter of 1989, and two-thirds of it came from copper trading. Salomon executives declined to comment on copper trading.

STABILIZING. Salomon Chief Executive Officer John H. Gutfreund has been calling the shots at Philipp Brothers ever since he ousted its chief, David Tendler, in a fierce fight in 1984. And Philipp Brothers was weakened when its profitable oil operations, including a huge refining business, were broken off and folded into a separate energy division.

Although Gutfreund has been criticized for not stepping in sooner, analysts view his decision to shrink Philipp Brothers as a positive development. Wall Street sees it as another indication of his goal to stabilize Salomon's volatile earnings. In May, Salomon acquired Lehman Management Co., a money management firm for individual investors, for $28 million.

Gutfreund's hope is that such moves will improve Salomon's profits and lift its stock price, which has languished in the mid-20s since the 1987 crash. At a May meeting in Orlando, Salomon's 153 managing directors agreed to pay themselves a large chunk of their annual bonus in company stock, not all in cash as had been the practice. "These guys are getting serious now," says an insider, "because in a sense the money being lost on Philipp is coming out of their own pockets."

By Jon Friedman in New York



BEECHCRAFT AND THE FLIGHT TO QUALITY.

We believe business worldwide is entering a critically competitive decade.

As the number of suppliers is reduced, only the best will survive. So aggressive companies are in a headlong *flight to quality.*

Quality of service is as important as quality of product.

You have to put your right people at the right places at the right time. Nobody likes it when people delay meetings for an airplane schedule or cut short a work session to catch a plane.

Many companies are winning the race by commanding their own Beechcraft, because a Beechcraft airplane can increase *executive output.*

Travel time can be work time. Your Beechcraft leaves when *you* are ready, not before. Aboard are the tools of your trade—tables, laptop computers, telephone, fax machine. Your office in the sky is quiet, comfortable and *secure from the eyes of strangers.*

Beechcraft's own flight to quality began in 1932 with Walter Beech's fastidious attention to detail at every point in the design, building and testing of business airplanes. The flight goes on.

Today, only Beechcraft makes jets and a full line of turboprops. This makes possible rare objectivity to help your deliberations.

Check the following page for news about the Beechcraft King Air C90A, an efficient way to accelerate your inevitable flight to quality.

Beechcraft
A Raytheon Company

BY GENE G. MARCIAL

IS NATIONAL SEMI READY TO SHAKE ITS LOSING STREAK?

Once a leader in its industry, National Semiconductor has had a tough time in recent years. The company has been in the red for four of the past five years despite annual sales of some $1.5 billion. Most analysts figure that this major maker of semiconductor chips will find it difficult to reverse the tide. It's little wonder, then, that National Semi's stock has slid to 5—far below its all-time high of 22¾ early in 1987.

Yet, according to some value players, the shares have hit the point where they should be accumulated. "I'm being a real contrarian in loading up now on National Semi," says investment pro Scott Black, president of Delphi Management in Boston. He concedes that Semi isn't in the same league with Intel or Motorola, both of which have flourishing niche markets. National Semi, on the other hand, makes a wide variety of standard, commodity-type semiconductor products, including microprocessors and linear and digital integrated circuits used in data processing, communications, and industrial control. Competition in these products is fierce, especially from Japanese manufacturers.

But Black believes Semi is finally on the verge of getting back into the black. The company broke even in its most recent quarter, vs. a huge deficit of 98¢ a share a year ago. For the year ending May 31, 1991, Black is forecasting that National Semi will earn 20¢ to 25¢ a share, vs. a loss of 38¢ a share in fiscal 1990.

NEW PRODUCTS. By the end of fiscal 1992, Black thinks earnings will look even better, jumping to $1.25 a share, largely because of continued cost-cutting by management and an expected pickup in demand for semiconductor chips. He also notes that the company has sold a few divisions and developed new proprietary products in high-growth areas, including microprocessors for fax machines, printers, and scanners.

One of the company's strengths, says Black, is its healthy balance sheet. He notes that with cash of $129 million, National Semi's long- and short-term debt of $76 million is well covered. He concedes that the company isn't recession-proof and that the stock could slip more in the event of a severe slump. But Semi's book value of $7.93 a share and hefty cash flow cut the downside risk, he believes. "For investors with an investment horizon of two to three years out, the stock is a giveaway at current prices," says Black, who has built up a 2% stake.

A HEALTHY FUTURE IN GUM DISEASE

Tiny, little-known Xytronyx is a biotech company that was one of the market's heftiest winners in the first few months of the year. The stock had risen from 6 in January to 23 in early May, and that's when the shorts started selling. They questioned the company's projections about its one product and claimed the shares were overpriced. That product, a disposable kit to test for periodontal diseases, had received preliminary marketing approval from the Food & Drug Administration. But the bears doubted it would get final approval soon, and the stock fell to 15 in just weeks. But Xytronyx may yet cause the shorts some sleepless nights—and lots of money.

Whispers are that full FDA approval for Xytronyx to market the test kit may come down soon. Already, the company has announced that Colgate-Palmolive has placed orders for 53,500 Periodontal Tissue Monitor kits for its European subsidiaries. Colgate and Xytronyx have an existing agreement for Colgate to market the kits in the U. S. Under the agreement, Xytronyx will get at least 75¢ per kit.

Jack Deutschmann, an analyst at Coburn & Meredith in Hartford, Conn., estimates that Xytronyx will generate pretax profits of at least some $21 million, or $7 a share, from U. S. sales alone. And profits from overseas could be much higher, he thinks.

One big investor speculates that once the FDA approves the kit, Colgate will move quickly to buy either a big stake in Xytronyx—or all of it. In a buyout, the company would be worth $40 a share—assuming that the periodontal test kit gets full FDA approval, estimates this investor. Xytronyx and Colgate declined comment.

WHY THE UAL DEAL MAY STILL FLY

Don't be so sure that the United Airlines buyout is dead. Sure, the company's stock is trading around $105 a share, vs. $163 a share three weeks ago, and way below the $201 a share the three unions have offered. But the buyout group headed by former Chrysler Vice-Chairman Gerald Greenwald had made big leaps toward bringing the deal together just prior to the lending freeze that hit after the Kuwait invasion. And when the Iraqi conflict is resolved, the UAL buyout may finally take off.

When Greenwald went to UAL's board on Aug. 8 for a 60-day extension to come up with the $4.38 billion purchase price, he took with him representatives of Manufacturers Hanover, Bankers Trust, and Security Pacific. Sources close to the board and the buyout group say the bankers were ready to sign commitment letters the day before the invasion.

The banks were prepared to join the financing because the buyout group had agreed to meet three provisions: Greenwald asked for and received proposals for subordinated financing from most of the six major aircraft and engine suppliers; he began talks with other investors to buy either preferred or nonvoting common stock in the new company; and the unions agreed to give up some veto power over a wide range of capital-spending decisions. All told, the unions would need bank financing of as little as $2.5 billion—almost $1 billion less than planned at the beginning of the year.

Now, the banks are waiting to see how the Middle East crisis plays out. If the Mideast situation stabilizes, insiders expect the negotiations to pick up where they left off.

By Aaron Bernstein

FOREIGN EXCHANGE. There's a world of evolving technology at International Paper's command. And we funnel it wherever it can make for better products for our customers. Since we acquired France's second-largest paper company, Aussedat Rey, we're sharing with them methods we've perfected for making alkaline papers that stay white for decades. And they're sharing non-impact printing know-how with us. Technology transferred between our Arizona Chemical subsidiary and its Swedish counterpart Bergvik Kemi is creating improved ingredients for products from printer's ink to chewing gum. And advanced graphics techniques developed by our people in Korea add point-of-purchase appeal to food packaging in California. When ideas fly, business takes off. **INTERNATIONAL PAPER.** Use our imagination.

© 1990 International Paper Company. All rights reserved

CITIZEN ADJUSTS ITS MAINSPRING

As timepiece sales stall, it's growing in computers and components

Maybe it loses something in translation, but the full-page newspaper ad that Citizen Watch Co. has been running in Japan seems rather odd. There's a black-and-white photo of a Labrador retriever, gazing over the shoreline. The message, in small Japanese characters: "I Have Dreams and Fangs." Below, in English, is one word: Citizen.

Seem like a strange way to sell watches? Maybe, but that's not the point. The ad is part of Citizen's attempt to shed its image as a poor cousin to archrival Seiko Epson Corp. These days, Citizen wants to be known as a company with the vision and mettle to pursue new ambitions—largely in computers and components.

That's more than just hype. Four years ago, watches and clocks made up two-thirds of Citizen's revenues as it surpassed Seiko to become the world's No. 1 timepiece maker by volume. But by yearend 1990, watches will represent just half of Citizen's $2.4 billion in sales, thanks to a vigorous diversification push by Michio Nakajima. By applying what it knows about liquid crystal displays, miniaturization, and power-saving microcircuitry, Citizen has already become an important supplier of laptop computer components.

LATHE LEADERS. [illegible] in timepieces, Citizen has good reason to diversify: The worldwide watch market is growing just 7% a year, and last year Citizen's watch and clock sales rose only 1.7%. But non-watch sales jumped 24.8%. "Diversification is basic to our strategy," says Nakajima, 64, the affable grandson of Citizen's founder.

Indeed, Citizen began experimenting with diversification 20 years ago. When Swiss suppliers refused to sell the company watchmaking equipment, it developed its own. Today, Citizen is Japan's leading supplier of lathes.

But in the 1990s, Citizen wants to make its mark in computers. The company has made printers for years and has made a major, though unheralded, contribution to the laptop PC boom. In 1984, Citizen introduced what was then the world's thinnest floppy-disk drive. Soon it had contracts with most of Japan's laptop makers. By mid-1989, Citizen had its next breakthrough, a ¾-inch-thick drive, which helped it woo new customers, including Compaq Computer Corp.

The result: Citizen is the top supplier for such drives. And, while total floppy-disk drive production in Japan fell 20% last year, Citizen's business in drives grew 40%, to $60 million, says CS First Boston (Japan) Ltd. This year, Citizen has more than doubled its monthly output to 300,000 drives. First Boston Analyst Steven Wheeler says sales should double for the year. "Our goal is to su pass [market leader] Sony by the end this year," says Seiichi Hayashi, mana ing director of Citizen's System & Pe pherals Div.

Citizen is also making its move in li uid crystal display screens. After pum ing millions of dollars into the techno ogy, it has come up with a high-quali 2.2-inch LCD color TV and sells som 300,000 LCD viewfinders monthly for vi eo cameras. Perhaps its biggest cou the contract to supply an extra-thin L for Compaq's LTE notebook PC.

Now, Citizen is laying plans to se computers under its own label. The com pany, which currently sells a small num ber of Citizen-labeled PCs made by U. S. manufacturer, is honing its skill by building the LTEs that Compa sells in Europe. That business, no worth $60 milllion annually, coul increase by 50% this year, Wheele predicts. "We're doing all the hard ware and software design so w could sell under our own brand a any time," says Akira Nakai, gener al manager of Citizen's Technica Laboratory.

PRINTER PLUNGE. It's probably no going to be quite that easy. Low cost, high-reliability manufacturin is of little value without good U. S distribution, and Citizen has yet t strike deals with big computer reta chains. Seiko got wide distributio for its Epson PCs by signing u dealers that already sold its highl successful printer line. Citizen' printer business has never ap proached Epson's and actually con tracted by 11% last year.

As always, Citizen must keep a eye on its main rival. Seiko-bran terminals and Epson-brand printers and PCs are hot sellers. In the U. S. for instance, sales of Epson's PCs and printers grew 47% and 29%, re spectively, in 1989, says researche International Data Corp.

Meanwhile, Citizen is trying to re vive its watch business. To slash costs, Citizen in the 1980s automat ed the manufacture of precision watch movements in Japan an built offshore plants to assemble cases, faces, and straps. But both Seiko and rival Orient Watch Co. have been expanding their own watch-movement businesses. And, despite a year-long effort, Citizen still lags behind in the fast-growing luxury market where Swiss-made watches dominate. That gives Nakajima's diversification plans added urgency and inspires Citizen's vision of "dreams and fangs."

By Robert Neff in Tokyo

NAKAJIMA: A LEAP INTO LAPTOPS?

PUSHING INTO HIGHER TECH

Share of Citizen's revenue by product lines	Years ended Mar. 31	
	1989	1990
WATCHES	53.8%	49.1%
OFFICE EQUIPMENT PCs, printers, floppy-disk drives	13.0	[illegible]
ELECTRONIC EQUIPMENT Handheld TVs, CD players, calculators	8.0	10.5
CLOCKS	5.1	4.7
INDUSTRIAL MACHINERY	7.0	8.7
JEWELRY AND EYEGLASSES	8.0	8.0
OTHER	5.1	4.6

DATA: COMPANY REPORTS

It's the best part. Because laser printers that contain PostScript software from Adobe Systems support more applications for more platforms than any other kind of laser printer. And that's a very sweet idea indeed. So call Adobe® at 1-800-952-6300, Dept. 176, for the complete list of PostScript printers. You'll be sure to find one that suits your taste.

POSTSCRIPT
From Adobe Systems

The Best Part Of A Laser Printer.™

"The Best Part Of A Laser Printer" is a trademark of Adobe Systems Incorporated. Adobe, PostScript and the Adobe typeface are trademarks of Adobe Systems Incorporated registered in the U.S.A. and other countries. ©1990 Adobe Systems Incorporated. All rights reserved.

THE NAMES BEHIND THE GAME.

The Computer Museum's April 27, 1990 Computer Bowl

Official Sponsors

Advanced Micro Devices
The Connectivity Chip Company

Andersen Consulting
The Systems Integrator

BASF Corporation
The Diskette

Fenwick Partners, Inc.
The Search Firm

Lotus Development Corporation
The PC Software Firm

Merrill Pickard Anderson & Eyre
The Venture Capital Firm

Price Waterhouse
The Accounting Firm

Stratus Computer, Inc.
The Transaction Processor

Sun Microsystems, Inc.
The Workgroup Computing Company

Thinx Software
The Intelligent Graphics Software

Visix Software Inc.
The High Performance Workstation Software

Satellite Sponsors

Bank of America

Infomart

Kleiner Perkins Caufield & Byers

Mac App Developers Association
Microsoft Corporation
University of Washington
Washington Software Association

Table Sponsors

Apple Computer, Inc., Advanced Technology Group
Atex Publishing Systems
CIO Publishing, Inc.
Fortune Magazine
Edward and Joyce Fredkin
Gardner and Karen Hendrie
International Data Group, Inc.
The MITRE Corporation
J.H. Whitney & Co./ Prime Computer Inc.
Stardent Computer Inc.

Cheerleaders

Boston Computer Society
Cunningham Communication, Inc.
Hummer Winblad Venture Partners
Christopher Morgan
Deloitte & Touche
Xerox Corporation

THE REAL WINNER:

The Computer Museum

Presenter

The Association for Computing Machinery

Founders and Underwriters

Pat Collins Nelson & Dr. David Nelson

The All Star Teams

The Winning West Coast Team

L. John Doerr, Captain
Kleiner Perkins Caufield & Byers

Stewart Alsop II
P.C. Letter

Bill Gates
Microsoft Corporation

Charles H. House
Hewlett-Packard Company

Lawrence G. Tesler
Apple Computer, Inc.

The Defending East Coast Team

Patrick J. McGovern, Captain
International Data Group

William E. Foster
Stratus Computer, Inc.

Bob Frankston
Lotus Development Corporation

Edward Fredkin
Boston University

Russell E. Planitzer
Prime Computer, Inc.

Sponsor, Boston High Tech Tailgate Party

Business Week Magazine

Media Sponsors

Business Week Magazine
CIO Publishing, Inc.
Communications of the ACM
Computer Reseller News
Computer Systems News
Computerworld
DEC Professional
Fortune Magazine
HP Professional
Information Week
InfoWorld
MacWorld
MIDRANGE Systems
Network World
PC World
Unix Today
Upside
VAR Business
VAX Professional

Trade and Service Sponsors

American Airlines
Bank of America
Boris Master Color
Boston Coach
Boston Harbor Hotel
Commonwealth Creative Group
Composing Room of New England
Computer Literacy Bookshops
The Eusey Press, Inc.
The Fairmount Hotel, San Jose
Farallon Computing, Inc.
H.K. Graphics
Inprint
Logitech Inc.
Munday and Collins, Inc.
Renaissance Conference Company
Rourke Eno Paper
TECHMART
World Trade Center/ Boston
ZBR Publications, Inc.

The Computer Bowl is a project to benefit the education programs of The Computer Museum, Boston, MA.
For 1991 Computer Bowl sponsorship information call (617) 426-2800 x346.

SEARCH

APAN POURS BIG BUCKS NTO VERY LITTLE MACHINES

IITI aims at the U.S. lead in research into 'microrobots'

Imagine the best engineers at IBM, Westinghouse, GE, and AT&T Bell Laboratories huddled over coffee, ainstorming over how to fit a robot to a human vein. Sound ridiculous? wouldn't in Japan. Just as it did ith semiconductors and optical elec- onics, Japan's powerful Ministry of ternational Trade & Industry (MITI) planning a project that will bring to- ether giant Japanese electronics and her high-tech companies, this time to evelop the world's smallest machines.

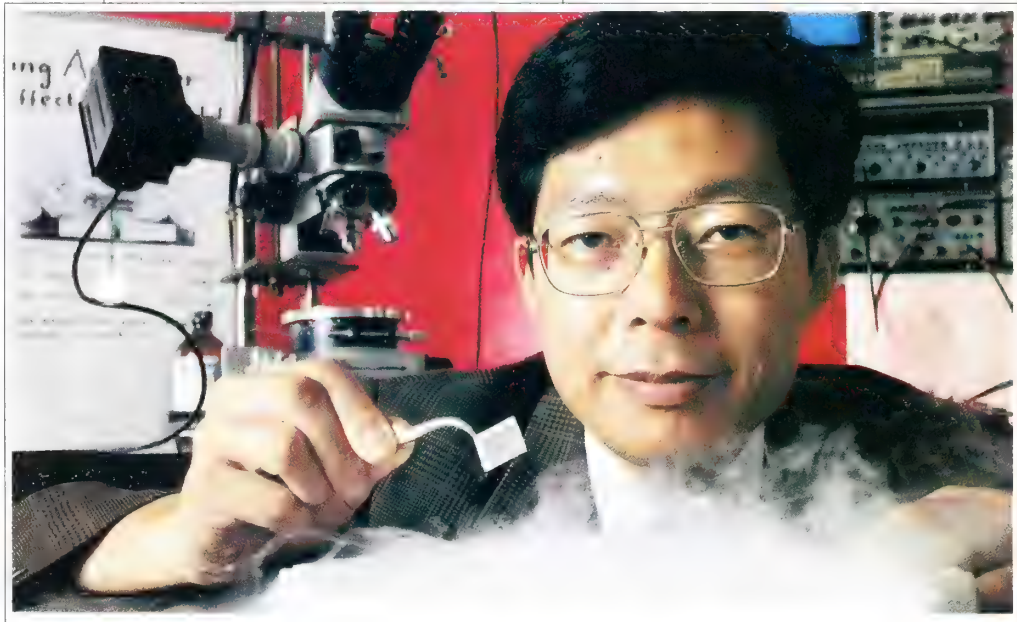
These micromachines are otors, sensors, and other de- ces so small they barely span e breadth of a human hair. ow, U. S. scientists, who pio- eered the lilliputian research, ay have to scramble to stay nead of Japan's ambitious an. It isn't official, but insid- s say MITI will soon announce $167 million project, in two ve-year stages, to develop microrobots" that could be sed in everything from medi- ne to nuclear power plants. Micromachines will fulfill an nportant social need," says azuo Sato of MITI's Science & echnology Agency.

ITTLE MEN. Kenzo Inagaki, a eputy director of MITI's indus- ial machinery division, who is xpected to coordinate the roject, compares microma- hines to shrunken men zip- ing through veins to destroy cancer or epair damaged tissue. Or a subcutane- us micropump could deliver precise uantities of insulin for a diabetic. Mod- ls of versatility, MITI's micromachines night inspect crannies inside nuclear re- ctors or turbine blades of jet engines to dentify cracks or potential weak spots.

Micromachines were pioneered mainly t Bell Laboratories and at leading U. S. niversities, including Massachusetts In- titute of Technology and the University f California at Berkeley. The earliest vork involved using semiconductor man- ifacturing techniques to craft tiny gears, sensors, and other machine parts n silicon chips.

Significant obstacles remain to building more complex, rugged micromachines. In the microworld, there are many curious phenomena. The tiniest obstacle is enough to stop a moving part. And because of surface tension, "lubricant materials no longer lubricate, they tend to act as adhesives," says Naomasa Nakajima, professor of mechanical engineering at Tokyo University.

Japanese researchers have been eagerly developing the technology all along. Toyota Motor Corp.'s Central Research Lab has a prototype of a micro pressure sensor to be used in its electronic fuel-injection system. And Hiroyuki Fujita, associate professor at Tokyo University's Institute of Industrial Sciences, is building superconductive micromotors to solve friction problems in chipmaking.



FUJITA IS BUILDING MICROMOTORS TO SOLVE FRICTION PROBLEMS IN CHIPMAKING

Making micromachines a national priority is no guarantee of success. Some past MITI efforts, such as the SIGMA project in computer-aided software engineering, essentially fizzled. And although there were spin-offs, the huge fifth-generation computer project of the early 1980s did not yield the anticipated breakthrough in intelligent machines.

But the scale of Japan's effort worries U. S. scientists. The $167 million project dwarfs the U. S. research budget for micromachines. The National Science Foundation doles out less than $2 million a year, and industry shells out a few million more. "We still have the top laboratories, and we're doing cutting-edge research," says George A. Hazelrigg, the NSF official who funds U. S. micromachines research. "But we're always worried that someone will go zooming by."

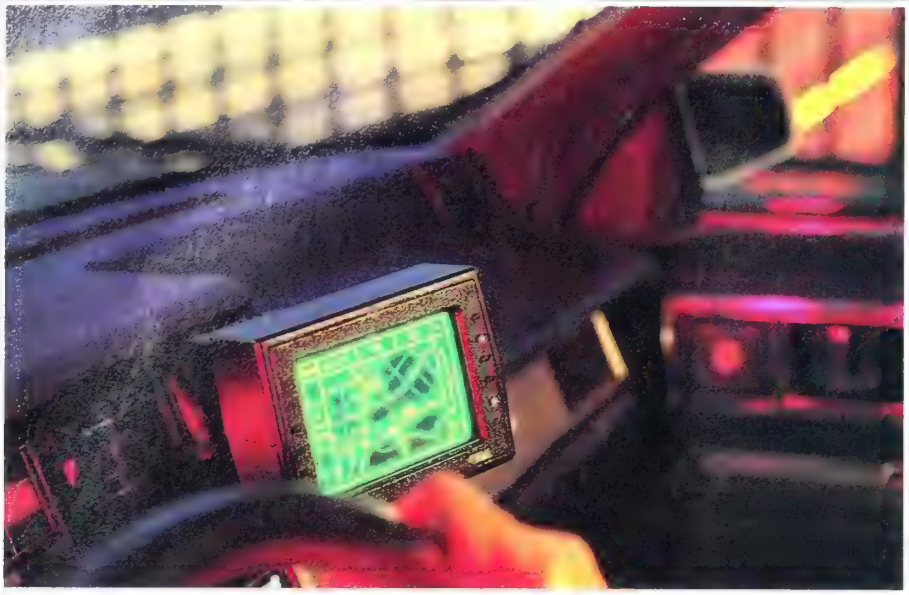
Japan's program is geared for that goal. It ensures that Japan's best brains will exchange basic research techniques and early technologies. Only about $26.7 million will go to up to five national labs and to university research teams. Most of the money will go to private labs. A number of high-tech giants, including Hitachi, Nippon Steel, Nikon, Toshiba, NTT, and NEC, have expressed interest, says Fujita, a project committee member. MITI will also invite scientists at foreign universities and companies to join.

Given Japan's expertise in semiconductor manufacturing, U. S. scientists expect it to make up ground quickly. As proof, U. S. researchers point to Toyota's plan to put electronics on the same chip with microsensors and micromachines, a key step to building more complex devices. "That scares a lot of people, because it would be a major step forward," says Hazelrigg.

To stay in the race, U. S. scientists may have to rely on an old defense. "We try to use brains as a substitute for money," says Hazelrigg. The question is: Will brainpower alone be enough?

By Karen Lowry Miller and Neil Gross in Tokyo, and John Carey in Washington

ELECTRONICS



ROAD WARRIOR: THIS MAPPING SYSTEM IS BEING TESTED BY CALIFORNIA'S PROJECT PATHFINDER

A GRIDLOCK-BUSTER FOR THE 21st CENTURY?

Car navigation systems are slowly making inroads in the U.S.

It's 6 p.m. You're on the freeway headed home, and the traffic slows to a crawl. The five-inch computer display on your dashboard shows a map that traces a less congested route. You arrive home in time for the TV news.

Electronic car navigation systems have been sold in Europe and Japan for years. But in the U. S., where the technology was conceived, it has been going nowhere. Now, that's about to change. Last month, General Motors, California transportation agencies, and the Federal Highway Administration set up Project Pathfinder to test an intelligent vehicle highway system (IVHS) in gridlocked Southern California. A few dozen drivers are plugged into a two-way radio network and in-car mapping system that supplies navigation and traffic information. Budget Rent-A-Car and Ford Motor Co. plan to start testing a rival system in luxury rental cars in October. And Blaupunkt, a U. S. division of Germany's Robert Bosch, will begin selling a $3,500 electronic mapping system this fall through some upscale West Coast car parts shops.

The technology could be a boon to motorists and employers alike. Estimates of lost productivity, accidents, and other costs from traffic congestion run as high as $100 billion annually, says Lyle G. Saxton, a Federal Highway Administration expert on navigation systems. At rush hour in Los Angeles, traffic slows to 35 miles per hour, on average, and is likely to plunge to 11 mph by the year 2010, he says. It isn't clear how much of that crowding can be avoided. But studies conducted by Motorola Inc. show that if 40% of vehicles were equipped, congestion would ease by 20% to 30%, says Randolph M. Doi, the company's IVHS project manager.

WHAT PRICE? Dawn Grinstain, a landscape architect for the California Transportation Dept., is already a believer. A participant in the Pathfinder project, she says her 12-mile drive between home and office used to take up to 45 minutes on the Santa Monica Freeway during rush hour. But now she's home in 20 to 30 minutes, thanks to the electronic map and traffic updates that help her chart a less cluttered path.

> 'There's probably a mass market for a system priced $500 to $700'—but that's still several years away

The question now is, how much is such convenience worth? "There's probably a mass market for a system priced what it costs for a premier sound system—$500 to $700," says Peter C. Voetsch, an IVHS expert at Chrysler Corp.'s parts unit, Acustar Inc. Revenues from advertising on the systems may drive down prices, but not fast. So most developers are targeting commercial fleets. And United Parcel Service is designing its own machines.

Blaupunkt plans to pursue both markets. With Etak Inc., which is developing compact-disk-based maps, it has persuaded the Los Angeles Fire Dept. to buy 400 of its TravelPilot systems. Etak was a U. S. pioneer in the market in the mid-1980s. But after poor sales of its Navigator systems, the company decided to focus on the software.

There's no dominant technology yet. The first U. S. systems, from Blaupunkt and Budget, rely on sensors attached to a car's wheels and on computer software to plot the car's position. Others, including Acustar, are working on devices that use satellite signals to locate vehicles. And GM is testing a synthesized voice for relaying directions, to avoid distracting the driver.

FEDERAL ROADBLOCKS. Eventually, most IVHS experts want to link in-car navigation systems with traffic-control networks. Companies such as GM and Motorola want to use radio waves to relay messages, while others envision a series of infrared roadside beacons to send the signals. A not-for-profit group called IVHS America is forming to coordinate these efforts. Its first mission: persuading Congress to appropriate $100 million a year for research and field tests. Mobility 2000, a predecessor of IVHS America, figures a system for major cities and the interstate highways will cost $35 billion over 20 years to build and run.

Others think it will all cost less. Motorola, with the Illinois Transportation Dept. and several universities in the state, has submitted an IVHS proposal for suburban Chicago. The company says the system can be installed cheaply by using some of Motorola's existing two-way radio networks and other technology. If approved by state and federal authorities, a test this fall will be the biggest experiment so far, involving up to 5,000 cars in an area of 2,000 square miles. Some experts fret that tying disparate systems into a nationwide network could turn into a monumental headache. But don't worry yet: The U. S. has miles to go before it hits that bump.

By Lois Therrien in Chicago

Now you can afford to upgrade every trip.

For about what you're paying now, you could be staying in a hotel that was made for you. Embassy Suites® hotels. Each of our rooms is a two-room suite, so you can spread out and work or stretch out and relax. And each suite comes with a free, cooked-to-order breakfast each morning (everything from pancakes to muffins to cereals and fresh fruit) and two hours of complimentary beverages+ each evening. If you're looking for more from your hotel, call us. We think you'll find we were made for each other.

EMBASSY SUITES HOTELS℠

We were made for each other.℠

In Canada
1-800-458-5848
In Mexico
95-800-362-2779

Call 1-800-EMBASSY
or your travel agent.

+ Subject to state and local laws.
GARFIELD: © 1978 United Feature Syndicate, Inc.

REVOLUTIONARIES SEIZE AMERICAN CLASSROOMS

ANNOUNCING A BUSINESS WEEK EXCLUSIVE...

ELECTRONIC SCHOOLS:

The Technology Revolution Comes to Education

Issue Date:
December 10, 1990

Ad Closing Date:
October 22, 1990

CONCERN ABOUT THE quality of our schools continues unabated. The good news is that a revolution has begun. There are in use today spectacular new technology-based systems for learning that promise a reinvigorated educational system, a more competitive work force, and a continuing leadership role for American business. This critical connection between technology and excellence in American education must be made *now*.

Business Week's important 1990 special advertising section on education will explore technology-based solutions, from computers and interactive multi-media, to television and telecommunications. It will be both a definitive guide and a call to action for American business leaders and educators to join in shaping this vital connection.

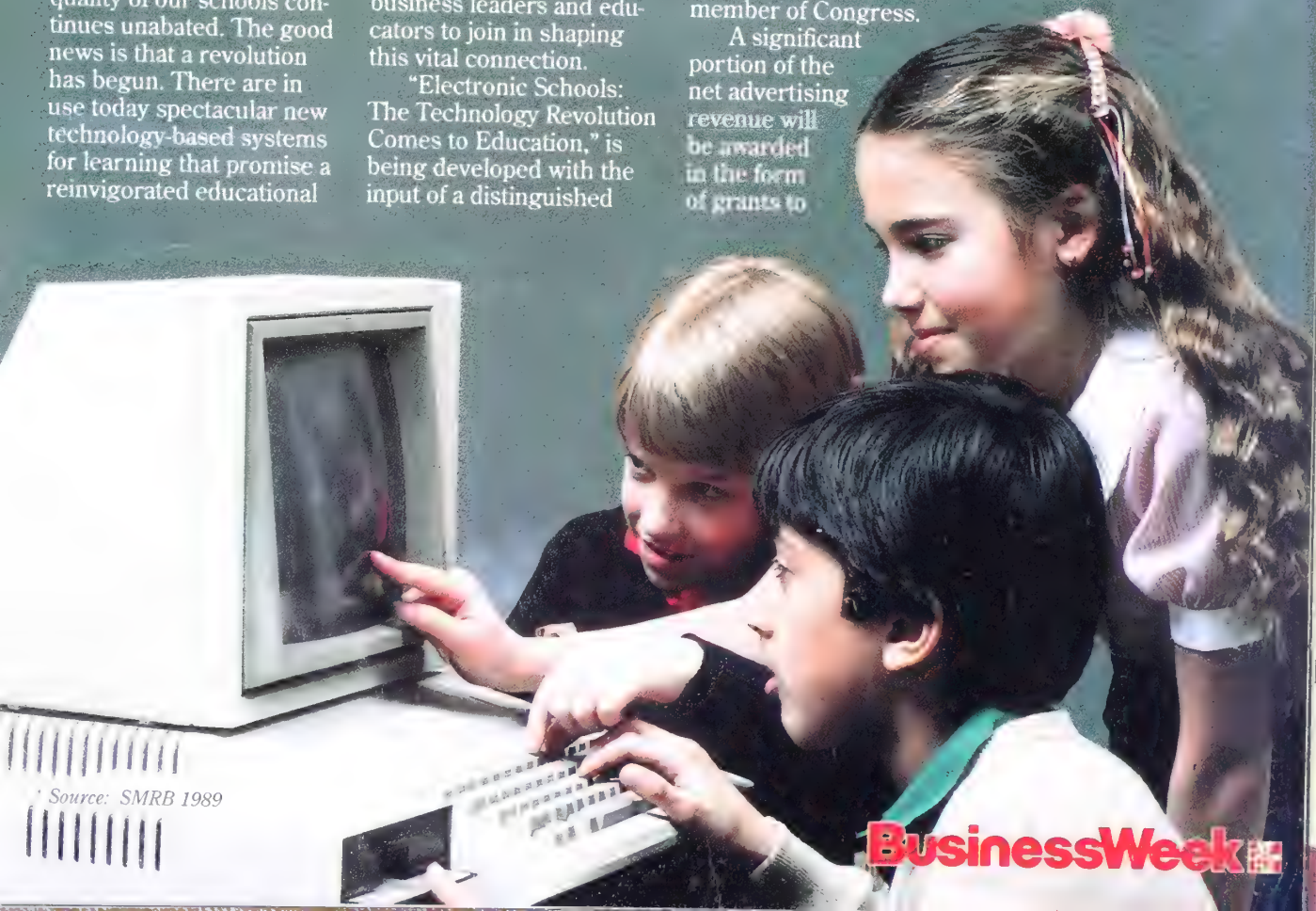
"Electronic Schools: The Technology Revolution Comes to Education," is being developed with the input of a distinguished Advisory Board comprised of leading educators, top government officials, and the CEOs of companies with a firm commitment to restructuring our nation's education system.

Beyond *Business Week's* 6.6* million North American readers, "Electronic Schools" will be further circulated to subscribers of selected, leading education magazines and journals. Bound copies of the complete report will also be sent to the President, to all 50 governors, and every member of Congress.

A significant portion of the net advertising revenue will be awarded in the form of grants to educators who are demonstrated innovators in the technology-in-education revolution.

Can technology-rich schools assure America's leadership role into the 21st century? *Business Week* is committed to the belief that they can–and they must. Our entire future depends on it.

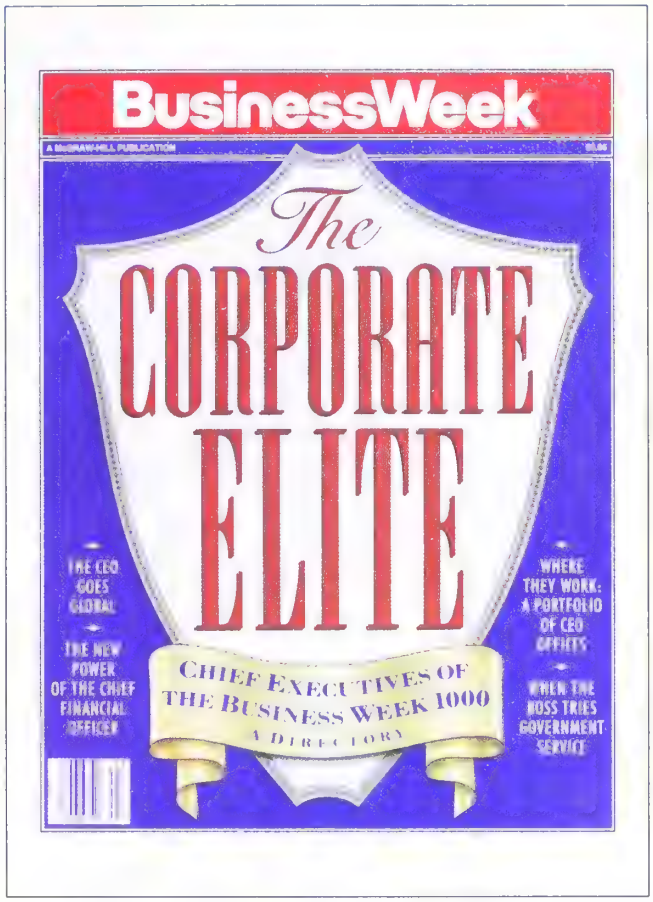
For additional information please call:
Bill DeGraff
Project Director
(212) 512-6012



* Source: SMRB 1989

BusinessWeek

Reach The Power At The Top

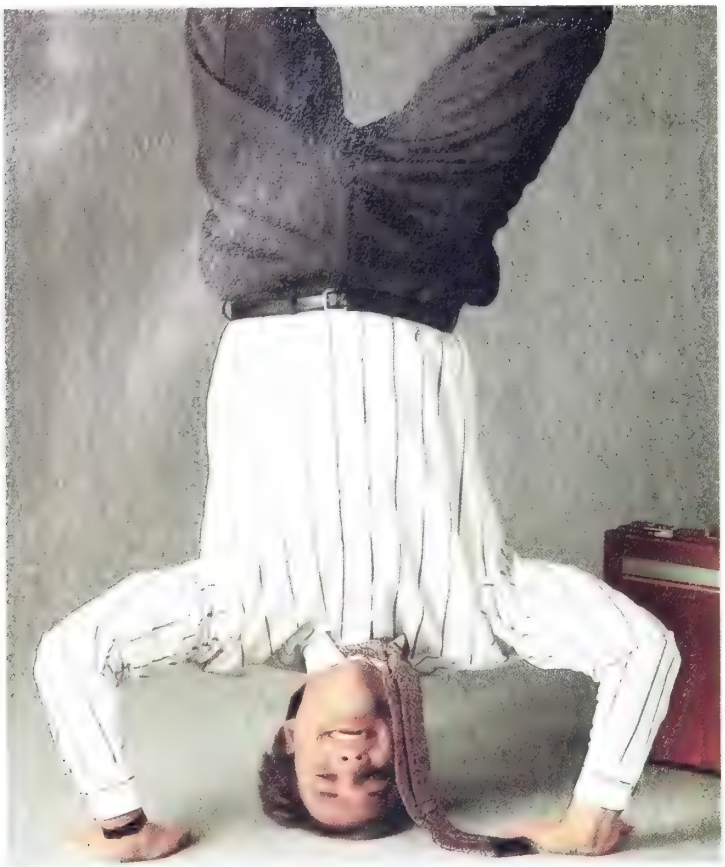


The CEO is one of the most intriguing figures in corporate America. Virtually everyone in the business community is curious about these captains of industry. How much power do they wield? What are their backgrounds? Their achievements? Their salaries? ■ On October 26, over 6.6 million influential readers will turn to Business Week for the answers. It's *The Corporate Elite*, our annual directory of the chief executives who run America's 1000 most valuable companies. ■ This is an unbeatable chance for you to reach the people who matter most — top business professionals who make purchasing decisions every day. They'll see your ad in an environment of unparalleled authority. And, because they often save the issue for future reference, they'll see your message again and again. ■ So reserve space today. For more information contact your local Business Week Account Representative or call Chuck Hennessy at (215) 496-3834.

ISSUE DATE: October 26, 1990 CLOSING DATES: Four Color - September 10, 1990
Black & White - September 17, 1990

BusinessWeek

© Eastman Kodak Company, 1990



You'll be totally satisfied with the reliability and service of your Kodak copiers, and we'll do whatever it takes to keep you that way. That's a guarantee.

If a headstand is what it takes to make you a totally satisfied Kodak copier customer, a headstand is what you'll get. But you're more likely to find Kodak people with both feet on the ground, delivering the service and support they're famous for. Which is a large part of the reason why Kodak copiers win awards for reliability, and Kodak wins awards for overall customer satisfaction, year after year.

Some of us are better than others at standing on our heads, but we're all experts when it comes to satisfying customers.

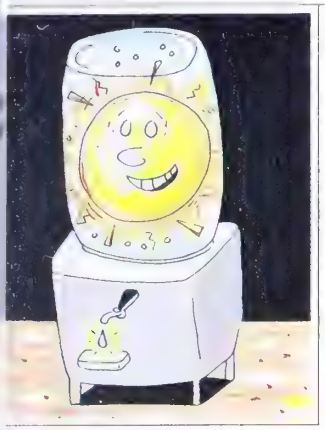
For details call: 1 800 255-3434, Ext. 156.

THE STAND ON OUR HEAD COPIER GUARANTEE FROM KODAK

Kodak copiers. Ask any customer.

DITED BY WILLIAM D. MARBACH

AKING POLLUTED WATER PURE N ONE EASY STEP



Ever since the dawn of the Space Age, NASA has pioneered a mundane but important technology: water purification. Now, work that NASA backed may be used on planet earth, where tighter environmental regulations are making disposal and purification of industrial waste water more costly. Photo-Catalytics Inc. in Boulder, Colo., says a system it developed for NASA can clean up industrial pollutants.

The system uses a process lled photocatalysis. A metal oxide powder is added to water olluted with organic compounds such as PCBs or hydrocarons. When the powder absorbs solar energy or artificial traviolet light, it converts the organics into carbon dioxide. ther catalysts remove heavy metals.

In laboratory tests, the system has cleaned up "the worst aste problems" that oil and chemical companies face, says resident Gerald Cooper. He claims the costs of the new chnology are almost competitive with deep-well injection disosal or activated-carbon purification—about 40¢ a gallon. And ith no waste, there's no danger of future liabilities.

A SAFER TEST OR BIRTH DEFECTS

Testing a fetus for genetic defects can be risky: There's a 1-in-300 chance that the mother will have a spontaneous iscarriage after amniocentesis, because a needle is inserted nto the uterus to obtain a sample of the amniotic fluid that rrounds the fetus. As a result, prenatal testing is recomnended mainly for women over 35 years old, who are statistially more likely to bear babies with defects.

Now, IG Laboratories in Framingham, Mass., has licensed an lternative technology for isolating fetal cells that may be afer. Developed by Dr. Diana Bianchi and others at Chilren's Medical Center in Boston, the technique requires only a lood test to obtain cells for genetic screening. It uses antibodes to differentiate the fetal cells from the mother's blood.

Besides being far less traumatic, there is no risk of miscariage, so the test could be more widely used. That's important, ays IG President Peter Lanciano, because more than 80% of abies with Down's syndrome and a majority of those with ther defects are born to women under 35. But it will be everal years before the test is ready for market, he says, ecause new analytical techniques have to be refined.

O YOU WANT TO TUNE IN HOSE TOUGH-TO-GET STATIONS?

An ordinary FM radio captures the strongest signal it hears at a particular frequency and ignores weaker ones. hat's why the FM radio in your car may abruptly change its une as you drive into a new city. But what if your FM radio ad a switch so you could flip to a second, weaker signal at the same frequency? Your menu of broadcast choices would double. That's the idea of a little-noticed patent issued last year to Glen A. Myers, an electrical engineering professor at the Naval Postgraduate School in Monterey, Calif.

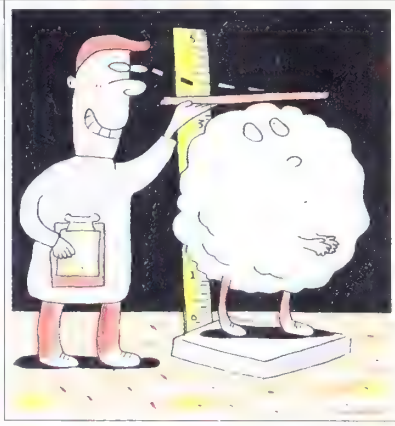
The trick to detecting a weaker signal is squelching the stronger one first. That's done by creating an exact inverse of the strong one and pitting it against its mirror image so the two cancel out, leaving the secondary signal exposed. The key is precise matching of the normal and inverted signals, which is difficult with current technology. Myers has a patent pending on an improved technique and has formed a partnership with John Leonard, a San Jose (Calif.) broadcast-equipment manufacturer, to license the technology. Motorola Inc. has expressed interest. Leonard predicts the first uses will be paging and two-way radio, which are short of airwave capacity. Ultimately, another possibility may be to use a low-power signal to send compact disk-quality digital radio.

FAST-FOOD WASTE MAY SOON BE FOOD FOR THE SOIL

To Ramani Narayan, a senior scientist at the Michigan Biotechnology Institute, it makes little sense to put garbage in airtight landfills, where it can't decompose. "What we need to do is be part of nature's recycling system," he says.

Narayan is trying to put that principle into action for fast-food waste. Backed by Grand Metropolitan PLC, the parent company of Burger King and Pillsbury, Narayan is developing a degradable plastic laminate to replace the nondegradable one that coats paperboard in fast-food and packaged-food containers. The paper and the plastic, which is 90% cornstarch, a natural polymer, will be composted along with garden waste. That should turn the wrappers into mulch. "It's true recycling—converting it to materials that go back into the soil," says Narayan. He expects to have a pilot program running next year with the help of local Burger King restaurants.

BUBBLES THAT HELP COTTON STAY IN SHAPE



You would never know it, but shrinking is not inherent to cotton. The reason cotton clothes shrink so much is that the material has been stretched in manufacturing, from spinning the yarn to dyeing the fabric. Once it hits a clothes dryer, the cotton just wants to return to its original size.

To minimize shrinkage, textile companies "fix" the fabric with formaldehyde or mash the cloth flat to lock in its shape. Now, J. E. Morgan Knitting Mills Inc., the Hometown (Pa.) subsidiary of Scotland's Dawson International PLC, has an alternative. Morgan's lightweight fabric, originally developed for thermal underwear, has many tiny air pockets. The company has also patented a series of manufacturing processes that minimize stretching. Result: Morgan keeps shrinkage to 5% or less—one-third the usual amount. The fabric has a softer feel, too, and manufacturing costs are lower. Morgan is expanding to make low-shrinkage cotton shirts and sportswear.

EDITED BY AMY DUNKIN

Computers

LET YOUR FINGERS DO THE RESEARCH

Barbara Bush got one last Christmas to check her spelling. Mikhail Gorbachev received one in Minnesota to help with his English. They're handheld electronic reference guides—tiny computers that help you spell, find just the right word, translate phrases between languages, and locate where in the Bible it says: "And they shall beat their swords into plowshares." (It's Isaiah 2:4.)

The trend started at Christmastime 1986, when Franklin Computer, based in Mt. Holly, N. J., brought out its Spelling Ace, a simple machine that can save you the embarrassment of misspelling "relevant" in an important report. "We felt it was pretty good," says Donald Rothenstein, senior merchandising manager at Sharper Image, the San Francisco-based retailer of expensive gadgets. "But it took off right from the start, much stronger than we expected, and has become a mainstay in our electronics line." That spawned a flood of imitators and variations on the theme. And there are new models arriving monthly.

All these devices share the same basic elements: a keyboard, a liquid-crystal display, and in some cases, a speaker. Some are as small as pocket calculators, others as large as paperback books. Each has a microprocessor that scans a data base compressed onto a few memory chips. The cheapest sell for less than $40, and the most expensive carry $400-plus price tags. Suppliers have established a pattern of moving the flashiest new models through upscale retailers and catalogs first. Later, when updated versions with more features come out, prices drop on the older machines and they start appearing in mass-merchandise outlets and discount catalogs. The handheld dictionary/thesaurus machines that originally cost $300 at retail are now selling for less than $100.

Keith Seiden, a vice-president in charge of running front-office computer systems at Shearson Lehman in New York, says he's come to depend on his Franklin Spelling Ace. "I'm a bad speller, and it's something I really felt dumb about," he says. Although the word-processing software on his personal computer has a spell-check program, the Ace works faster and tells him the correct spelling, rather than simply flagging words that are spelled incorrectly. If he's unsure of how to spell "persistence," he'll punch in his best guess, p-e-r-s-i-s-t-a-n-c-e. The speller then displays the correct spelling. "I'm very protechnology, and this is literally one of my most important tools," he says.

COMO SE DICE. Now, Seiden has graduated to the more advanced Franklin Language Master, which also has a dictionary, thesaurus, and word games. The top-of-the line Language Master 4000 ($400) has a speech-synthesis chip and a speaker to pronounce correctly—albeit with a robot-like inflection—any of 83,000 words. For high school stu-

nts, it includes a 7,000-word cabulary drill aimed at im-oving verbal scores on the holastic Aptitude Test.

By now, basic spelling ecker/thesaurus units are mmodities. In catalogs or scount outlets, the Ace and e Selectronics Word Finder n be had for as little as $39. cently, Texas Instruments ded its first machine in the tegory. At $120 list, it's icey—but the keyboard has surer feel, the display is sper, and unlike the Ace, if u punch in "holesome," it mes up with the correct elling, "wholesome."

Handheld language transla-rs have become big sellers,). "I doubt they will replace nventional language in-ruction, or even our phrase oks, but it's a nice add-on r anyone traveling," says len Mastromonico, director Berlitz Publishing, an arm the famed language school. rlitz has licensed Selectron- of Pittsford, N. Y., to pro-ce language-translation ma-ines modeled on printed rlitz guides.

The first electronic transla-r to score big—primitive odels had appeared as early 1983—was the Fanfare, im-rted by British Boston Mar-ting. The earliest model, hich hit U. S. stores in 1988, uld translate only 1,400 ords into five languages nglish, French, German, alian, Spanish), but the vo-bulary was upped last year 2,600 words in a new mod- says Simon Wigglesworth, esident of British Boston.

ANGMAN, ANYONE? Listing r $189, the Hexaglot T427 n translate 6,700 words and 0 phrases into six lan-ages. The machine has sev-al unique features. It helps u build sentences using ch all-purpose phrases as: Iow do I get to the . . . ?" nd its two-line display shows e phrase in two languages multaneously. For game ffs, it plays multilingual angman.

Selectronics' $120 Berlitz terpreter, which converts ,500 words and 300 phrases to five languages, has one ajor advantage over the Hexaglot and the Fanfare units: a typewriter-style (QWERTY) keyboard format, which makes entering words easier than using the alphabetical layout of the Hexaglot. Makers of language translators say their next move will be to add Japanese to their machines—the most frequently requested improvement, says Wigglesworth.

In addition to multilingual machines, there are also many one-to-one (English-Spanish, English-French, etc.) products. Some, such as Seiko's 40,000- and 80,000-word electronic dictionaries, are available at deep discounts. Just entering the language-translation market, Franklin is offering a comprehensive (250,000-word) Spanish Master/Maestro Inglés unit that lists for $300. And for business executives headed to Moscow or Leningrad, it has announced plans to make a Russian translator.

As in the spelling/thesaurus category, the latest twist in language translators is the talking version. Matrix, from British Boston, is now available at Sharper Image and such upscale department stores as Saks Fifth Avenue. It may take a few minutes to tune your ear to the synthesized speech, but the $250 machine does a creditable rendering of phrases and words in five languages. Hexaglot will soon begin shipping its talking version to stores, and Selectronics, which recently introduced the 10-language Berlitz Eurotraveler (including Dutch and three Scandinavian languages) for $150, says it will also have a speaking machine in 1991.

Electronic translators—especially those with phrases—are useful study aids for learning a language or brushing up on one. But if you don't have at least a passing familiarity with a language, you may do as well buying a phrasebook for a fraction of the cost. "I found the translator virtually useless," says Paula George, who travels frequently to Europe as president of The SoftAd Group, a Sausalito (Calif.) producer of advertising on floppy disks.

WHOLLY SCRIPTURE. As the technology improves and more information is crammed into less space, the realm of handheld reference products is rapidly expanding. Selectronics and Franklin have come out with electronic versions of the Bible, for $300 and $329, respectively. They allow you to search the entire texts of the Old and New Testaments by entering key words.

Both companies are also planning electronic encyclopedias for release in 1991. Like the Bibles, these machines store information on removable cartridges. You'll be able to buy the basic hardware with the Bible or encyclopedia, then switch cartridges to reprogram the machine for another purpose. Franklin has announced plans for an electronic *Bartlett's Familiar Quotations* and *World Almanac Book of Facts.*

Eventually, says Selectronics Chairman Michael Weiner, handheld reference products will be considered less as novelty items and more as business tools. His company is working on an electronic *Physicians' Desk Reference* and recently won a contract to produce an electronic rate book for the insurance industry. Maybe there's a new best-seller in the making: *All I Really Need to Know Is in My Handheld Reference Guide.*

Geoff Lewis

WANT GREATER WORD POWER? PRESS A BUTTON ON...

Product	Features	Price*
FRANKLIN SPELLING ACE	Displays correct spelling for 80,000 words	$50
SELECTRONICS WORDFINDER	Compact speller with thesaurus, word games, vocabulary drill, 100,000 words	50
TEXAS INSTRUMENTS THESAURUS/SPELLER	Speller with thesaurus, 97,000 words; helps find missing letters for crossword puzzles	120
SELECTRONICS BERLITZ INTERPRETER	Translates 12,500 words, 300 phrases (English, French, German, Italian, and Spanish)	120
HEXAGLOT T427-M3	Six-language translator (includes Portuguese) with 150 phrases	189
MATRIX INTERPRETER	Speaking language translator, with 10,000 words, five languages, 13,000 phrases	250
FRANKLIN LANGUAGE MASTER 4000	Speaking dictionary/thesaurus defines and pronounces 83,000 words; word games	300

*Suggested list price

DATA: BW

THE $189 HEXAGLOT TRANSLATES 6,700 WORDS INTO SIX LANGUAGES

Travel

PAMPERED AIR TRAVEL FOR A PITTANCE

As United Flight 110 soars above the Mojave Desert, I settle down to my first glass of champagne. My spacious seat is made of that cushy gray leather common to ministers' Cadillacs when I was a kid. After munching on crab legs, Caesar salad, and sausage pasta, it's time to watch a movie. For all this first-class luxury, a Chicago-Los Angeles round-trip costs a princely $1,671. But I swing it by flashing my United frequent-flyer card and adding a mere $80 to my $348 coach fare.

As my experience proves, flying in the front of the plane is within reach of even frugal travelers. That's because airlines have devised an abundance of upgrade opportunities to lure domestic passengers who fly often or at full fare. "When a heavy traveler has a choice, upgrade features become the tiebreaker," says Rick Larsen, market planner for Midway Airlines.

Since most airlines upgrade only their own frequent-flyer members, it pays to enroll in the program for each carrier you fly. Then you can steer your travel toward the airline with the most lenient policy for your fare or destination.

For example, Delta lets members with full-fare coach tickets upgrade to first class for an extra $15 to $45 each way, depending on ticket price. TWA allows members paying any full coach or M-class discount fare to get free, confirmed upgrades to business class on domes widebody flights. Ameri West, Eastern, and Contine tal offer members first-cla fares equal to full-coach pric

CASHING IN. Some progran award free upgrade certi cates, but they often requi you to cash in 10,000 freque flyer miles. It's better to pu chase the one-way upgra certificates offered for $12 $25, depending on how mar you buy and the mileage your trip. Rules vary: Ame can requires you to buy a se arate sticker for each leg of trip that involves changin planes; United doesn't.

United and American giv their elite flyers (those wh have flown at least 25,00 miles the previous year) a fe free upgrades each year, ar allow them to use upgra coupons with any fare. Ar Midway's FlyersFirst Plat num members (20 round-trip in 12 months) get free, unlim ited upgrades, regardless fare, if space is availab within 24 hours of departur Whatever upgrade option yo select, you may never have squeeze into a cramped mi dle seat again. *Jim Ell*

Smart Money

IT'S ALUMINUM'S SHINING HOUR ON THE STREET

Years of roller-coaster profits have conditioned aluminum-company investors to bail out at the first whiff of a downturn. Early this year, when Aluminum Company of America reported fourth-quarter earnings that fell short of Wall Street estimates, the company's share price tumbled 25%, to 59. Other aluminum stocks have dipped, too, for a reason: First-half profits of the largest producers—Alcan, Amax, Reynolds, and Alcoa—were down an average of 45% from a year before.

So why is Wall Street recommending aluminum stocks now? A decade of retooling and restructuring may be about to pay off. True, the U. S. economy is sputtering, and the Middle East situation could sharply increase production costs—especially if oil tops $30 per barrel. But aluminum orders have picked up because of U. S. inventory rebuilding and economic expansion in Europe and Asia.

Aluminum prices should remain fairly stable, and earnings are expected to rebound handsomely next year. As long as oil prices don't get totally out of hand, "there will be no direct effect on aluminum," says analyst Clarence Morrison of Prudential-Bache.

A BARGAIN. Alcoa has the strongest long-term outlook, says PaineWebber analyst Peter Marcus. Although there's a slowdown in the U. S. auto and construction industries, demand for Alcoa's high-margin aluminums for commercial aircraft and beverage cans is booming.

Alcoa shares rebounded to about 69 before Iraq invaded Kuwait. With the price off 8% since then, analysts consider Alcoa a bargain. It sells at 8.4 times estimated 1990 earnings, well below the 14.4 price-earnings ratio for the Standard & Poor's index of 400 industrial companies.

Thomas Van Leeuwen, an analyst at Shearson Lehman Hutton, believes Reynolds is the best near-term buy. With 41% of its profits coming last year from consumer packaging, Reynolds is less sensitive to the volatile commodity aluminum business.

Analysts are less bullish on Amax, which got 80% of earnings last year from aluminum subsidiary Alumax. Amax's product mix is heavily dependent on the primary aluminum and construction markets. Still, healthy gold and coal operations balance its soft-aluminum business.

Alcan is another long-term bet. The Canadian producer expects a big payoff soon from expensive capital projects; all its new smelting capacity in Canada should make Alcan a low-cost producer. Like Alcan, other companies believe that years of modernizing have them able to give investors a smoother ride. *Mike Schroeder*

ALUMINUM'S PROFIT PICTURE BRIGHTENS

	Earnings per share* 1990	1991
ALCOA	$7.49	$9.24
ALCAN	2.22	3.01
AMAX	2.76	3.37
REYNOLDS	6.52	7.93

*Broker estimates

DATA ZACKS INVESTMENT RESEARCH, BW

Leisure

OAM SWEET FOAM: TOURING HE MIDWEST'S BEER BELT

For lovers of fine chardonnay, California's Napa Valley is the place go. But for serious beer inkers, the Beer Belt, retching from Wisconsin to issouri, is mecca. What bet- r place to visit on a hot day an a cool brewery where ast, hops, corn, and barley e transformed into beer? specially when most tours clude a tasting at the end.

The place to start is Milaukee, a.k.a. Brewtown. ome of Miller, Pabst, and ntil recently, Schlitz, the city replete with mansions built beer barons and festivals onsored by the breweries.

As you approach the brewy in "Miller Valley," you'll nell the sweet aroma of bary malt. Parking is plentiful, nd tours are frequent. But prepared to sit through a -minute commercial at the art. And don't expect the oduction tour to be particurly enlightening. Although ummer weekends are popur, the packaging lines are ut down, and the unairconioned brewhouse is often osed to the public because the heat.

OMPAH, OOMPAH. But the reored portion of Miller's origal 1850s brewery is genuine- interesting. And after the our-long tour, you can swill iller in a Bavarian-style inn, omplete with stained glass nd wood carvings, an outoor beer garden, and an ompah band. Like most rewery tours, Miller's is free 14 931-2337).

Likewise, the highlight of e 35-minute Pabst tour (414 23-3709) is its Tudoresque eer garden shielded from the n by ivy and leaded glass. tephen Morris, author of *The reat Beer Trek: A Guide to e Highlights and Lowlites f American Beer Drinking*, ays the Pabst garden is an environment in which the onsumption of beer, particularly on a summer afternoon, is raised to the sublime."

Next, set your sights on Stevens Point, Wis., four hours northwest of Milwaukee. That's where the Point Brewery is located (715 344-9310). If you're curious about the kind of company that boasts "Point: It's Not Just For Breakfast Anymore," you'll find your answer here.

Unlike the larger breweries, Point's tour is intimate, unhurried, and thorough. Not only can visitors look down into the boiling brew-kettles, but also they are guided through virtually every area of the tiny brewery's operations. "Here you get your feet wet a little," says tour guide Dave Schleihs.

Two hours west of Stevens Point is the Leinenkugel brewery in Chippewa Falls, Wis., (715 723-5557), makers of what locals call Leinie's. On the banks of a rushing stream, the 123-year-old brewery was purchased by Miller in 1988. Jake and Richard Leinenkugel, the founder's great-great grandsons, work there, and some original buildings are standing. Inside, you'll find what brewmaster Art Rehberger of Miller's calls an "operating antique."

From Minneapolis, a two-hour drive southwest takes you to the August Schell brewery (507 354-5529) in New Ulm, Minn. Founded in 1860 and owned and operated by five generations of Schells, the brewery was spared during the Sioux uprising of 1862. The recently renamed August Schell Pils is an award-winning pilsner that rivals the world's best.

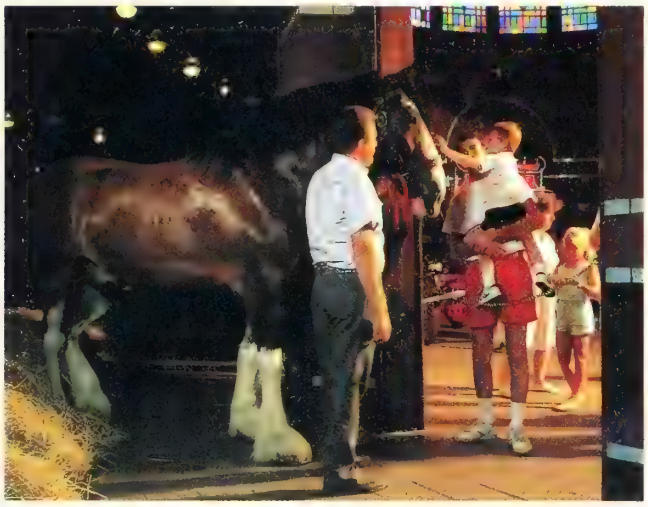
The gardens surrounding the brewery are charming, despite dwarf statues and other kitsch. But the famed deer park consists of a few forlorn-looking whitetails trapped in a big pen. For $1.50, you get to sample beer in a room overlooking gardens and the Cottonwood River.

POTBELLIED PATRON. Heading back east a few hours to the land of cheese, no serious beer lover would want to pass up the G. Heileman Brewery in La Crosse, Wis. There you'll find what the brewery calls "The World's Largest Six-Pack"—six aging outdoor tanks that hold 22,000 barrels of beer, enough for 7,340,796 cans. Adjacent is a statue of potbellied King Gambrinus, the 13th century patron of beer. Heileman's computer-controlled brewhouse is a must-see for anyone interested in beer production.

Wind up your sudsy safari at Anheuser-Busch, self-styled "King of Beers," in St. Louis. Tours leave every 10 minutes. First stop is the Clydesdale stables, built in 1885 and recently restored at a cost of $1 million. Stables, brewhouse, and old schoolhouse are national historic landmarks and are spotless.

Unfortunately, the brewhouse is closed to the public for modernization until 1992. But a six-minute video does a good job of explaining how beer is made without a heavy commercial pitch. And Anheuser, like most breweries, also has an extensive "breweriana" collection: wonderful old advertisements, beer bottles, and labels from earlier eras, and even products it sold during prohibition. No swing through the beer belt would be complete without it.

Julie Siler



Anheuser-Busch and Point Breweries: Most tours are free—and you get a taste at the end

Worth Noting

■ **HEAD START.** Youngsters 8 to 18 years old and up may get entrepreneurial ideas with a Busines$ Kit. It's a paperboard briefcase stuffed with tutorial booklets, instructional audiocassette, and startup supplies. Busines$ Kids (800 852-4544) tags it at $49.95.

■ **SQUARE DEAL.** The newly refurbished Paramount Hotel in Times Square features a high-tech, spartan look and family attractions such as child care and $1 movies. Room rates start at a modest $90 (212 764-5500).

LIMITED PARTNER?
NEED HELP?

Call Robert A. Stanger & Co.'s

PARTNERLINE™

1-900-786-9600

For information on:

- Locating General Partners
- Partnership Financial Condition
- Valuation and Markets
- Over 25,000 Partnerships

Hours 9 a.m. — 5 p.m. (Eastern Time)
($5 per minute)

1-800-CALL-EDF
EDF Ad Council

Index to Companies

This index gives the starting page for a story or feature with a significant reference to a company. Most subsidiaries are indexed under their own names. Companies listed only in tables are not included.

A

A. Sarasin & Cie **70**
ABB Asea Brown Boveri **70, 74**
Abbott Laboratories **66**
Ailes Communications **41**
Alberto-Culver **56**
Alcan **92**
Allstate Insurance **34**
Aluminum Company of America **92**
Amax **92**
AmBase **40**
America West **92**
American **92**
American Medical International **66**
American Savings Bank **36**
Arab Banking **25**
Asahi Glass **44**
Astra International **44**
AT&T **44, 66, 83**

B

Bailey Drug **64**
Bain **32**
Bank Leu International **70**
Bank of America **12**
Bank of Credit & Commerce International **36**
Barito Pacific Group **44**
Baxter International Inc. **66**
Beiersdorf **64**
Berlitz Publishing **90**
Boeing **6**
Booz Allen & Hamilton **66**
British Boston Marketing **90**
Budget Rent-A-Car **84**

C

Caltex **44**
Canon **52**
Cardinal Distribution **64**
Carillon Importers **58**
CenTrust Savings Bank **36**
Chrysler **78**
Circuit City **34**
Citizen Watch **80**
Coldwell Banker **34**
Colgate-Palmolive **78**
Combustion Engineering **70, 74**
Compaq Computer **80**
Coniston **64**
Contel **74**
Continental **32, 92, 96**
Continental Grain **22**

D

Datek Securities **70**
Davy **25**
Dawson International **89**
Dean Witter **34**
Delta **32, 92**
Dominick & Dominick **70**
Dow Jones **38**

E

Eastern **92, 96**
Eastman Kodak **52**
Ellis **70**

F

Finacor Anstalt **70**
First City Bancorporation of Texas **6**
First Interstate Bancorp **12**
Ford **28, 35, 84**
Fox Broadcasting **41**
Franklin Computer **90**
Fries Entertainment **41**

G

Garfinckel's **6**
GE **44, 83**
Gillette **64**
GM **35, 84**
Goldman, Sachs **40, 76**
Grand Metropolitan **89**
Great River Garment Industries **44**
Greyhound **96**
GTE **74**
Guardian Industries **44**

H

Helene Curtis Industries **64**
Hercules **36**
Hitachi **52, 83**
Holiday Inns **35**
Home Depot **34**
Honda Motor **35**
Hospital Corp. of America **66**
Humana **66**

I

IBM **66, 83**
IG Laboratories **89**
Indah Kiat Pulp & Paper **44**
Intel **78**
International Harvester **96**

J

Johnson & Johnson **64**
Johnson Products **56**

K

K mart **34**
Komatsu **44**
Kraft **66**

L

Lever Brothers **64**
Lloyds Bank **70**
Lonrho **25**
Lucky-Goldstar **44**

M

M&M Products **56**
Marathon Oil **70**
Marc Rich **76**
Marriott **35**
Marubeni **44**
Merrill Lynch **66, 70**
Midway **92**
Mitsui **44**
Mobil **70**
Montgomery Ward **34**
Motorola **78, 84, 89**

N

National Medical Enterprises **66**
National Semiconductor **78**
NEC **83**
Nikon **83**
Nippon Steel **83**
NTT **83**

O

OreAqua **40**
Orient Watch **80**

P

Paul L. Forchheimer **70**
Philipp Brothers **70, 76**
Photo-Catalytics **89**
Plenmeer **70**
Polaroid **52**
Premier Hospitals Alliance **66**
Procter & Gamble **56, 64**

R

Republic Health **66**
Revlon **56**
Reynolds **92**
Robert Bosch **84**

S

Salomon Brothers **70, 76**
Scandinavian Airlines System **32**
Schieffelin & Somerset **58**
Scott Paper **44**
Sears **34**
Seiko **90**
Seiko Epson **80**
Selectronics **90**
Seligmann, Harris **70**
Sharper Image **90**
Shearson Lehman **90**
Soft Sheen Products **56**
SoftAd Group **90**
Sony **52**
Sumitomo **44**

T

Texas Air **96**
Texas Instruments **90**
Toshiba **83**
Toyota **83**
TWA **92**

U

UAL **78**
United **92**

V

Vik Brothers International **40**
Volkswagen of America **35**

W

Wal-Mart **34**
Waste Management **66**
Wells Fargo **12**
Westinghouse **44, 83**

X

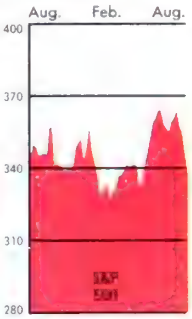
Xytronyx **78**

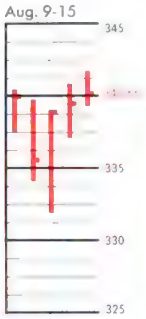
nvestment Figures of the Week

AMENTARY

e pain and suffering in the fi- cial markets. The dollar plum- ed and hit a postwar low inst the German mark. At the e time, the gold bulls ran ram- t, sending the yellow metal as as $425 an ounce on Aug. before it subsided closer to $400 level. U. S. stocks and ds meandered on light volume, investors hanging on every dline. The Tokyo stock market ered its fourth-worst decline on Aug. 13 but rebounded in next two sessions.

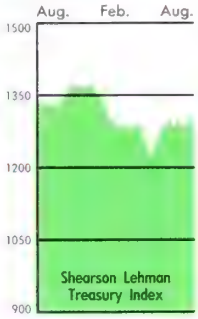
STOCKS

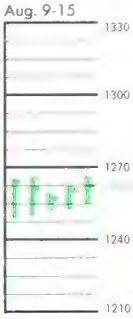




52-week change **–1.6%** 1-week change **0.5%**

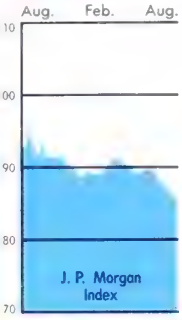
BONDS

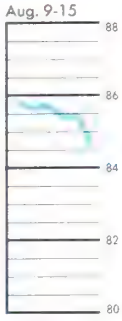




52-week change **–6.0%** 1-week change **0.1%**

THE DOLLAR





52-week change **–9.0%** 1-week change **–1.4%**

ARKET ANALYSIS

S. STOCKS	Latest	% change Week	% change 52-week
W JONES INDUSTRIALS	2748.3	0.5	2.0
COMPANIES (Russell 1000)	176.0	0.6	–3.6
ALL COMPANIES (Russell 2000)	151.3	0.1	–14.0
COMPANIES (Russell 3000)	186.9	0.6	–4.3

REIGN STOCKS	Latest	% change (local currency) Week	% change (local currency) 52-week
IDON (FINANCIAL TIMES 100)	2239.3	0.1	–4.5
KYO (NIKKEI INDEX)	28,112.1	–1.4	–19.9
RONTO (TSE COMPOSITE)	3508.1	0.9	–12.6

FUNDAMENTALS	Latest	Week ago	Year ago
90-DAY TREASURY BILL YIELD	7.7%	7.6%	8.2%
30-YEAR TREASURY BOND YIELD	8.8%	8.9%	8.1%
S&P 500 DIVIDEND YIELD	3.4%	3.5%	3.0%
S&P 500 PRICE/EARNINGS RATIO	15.9	15.7	13.4

TECHNICAL INDICATORS	Latest	Week ago	Reading
S&P 500 26-week moving average	347.3	347.1	Negative
Stocks above 26-week moving average	27.5%	25.9%	Neutral
Speculative sentiment: Put/call ratio	0.40	0.45	Neutral
Insider sentiment: Vickers sell/buy ratio	0.98	1.26	Positive

NDUSTRY GROUPS

BRIDGE INFORMATION SYSTEMS INC.

UR-WEEK LEADERS	% change 4-week	% change 52-week	Strongest stock in group	% change 4-week	% change 52-week	Price
OLD MINING	14.2	30.5	HOMESTAKE MINING	17.3	64.5	22
IL AND GAS DRILLING	10.2	37.2	ROWAN	11.8	62.9	14¼
IL WELL EQUIPMENT AND SERVICES	9.5	52.5	HALLIBURTON	14.0	54.2	56⅞
NTERNATIONAL OIL	5.0	25.8	EXXON	7.2	19.8	52¼
OMESTIC OIL	4.6	17.5	ORYX ENERGY	13.4	44.2	53

UR-WEEK LAGGARDS	% change 4-week	% change 52-week	Weakest stock in group	% change 4-week	% change 52-week	Price
IRLINES	–28.8	–48.8	UAL	–34.4	–58.9	105¾
OTELS AND MOTELS	–24.2	–58.9	PRIME MOTOR INNS	–38.7	–86.7	4¾
AMING	–23.6	–14.0	CIRCUS CIRCUS	–24.5	12.7	53⅛
ERSONAL LOANS	–22.8	–30.9	HOUSEHOLD INTERNATIONAL	–27.6	–39.7	35½
EMICONDUCTORS	–21.8	10.4	ADVANCED MICRO DEVICES	–37.7	–30.4	6

MUTUAL FUNDS

MORNINGSTAR INC

ADERS

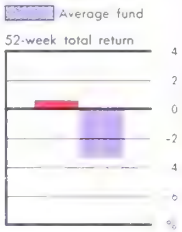
r-week total return	%
STRATEGIC INVESTMENTS	18.7
UNITED SERVICES GOLD SHARES	11.7
ENTERPRISE PRECIOUS METALS	11.6

-week total return	%
EQUITY STRATEGIES	56.5
FIDELITY SELECT ENERGY SERVICE	51.4
FIDELITY SELECT BIOTECHNOLOGY	38.5

LAGGARDS

Four-week total return	%
PRUDENT SPECULATOR LEVERAGED	–26.3
STEADMAN OCEANOGRAPHIC TECHNOLOGY	–23.1
SLH SMALL CAPITALIZATION	–21.4

52-week total return	%
PRUDENT SPECULATOR LEVERAGED	–36.3
FIDELITY SELECT BROADCAST & MEDIA	–30.7
FIDELITY SELECT SAVINGS & LOAN	–30.3



RELATIVE PORTFOLIOS

DATA RESOURCES INC.

llar amounts
present the present
lue of $10,000
vested one year
o in each portfolio

rcentages indicate
e-day total returns

Gold	Money market fund	Treasury bonds	U. S. stocks	Foreign stocks
$11,371	$10,708	$10,117	$9,898	$8,916
+7.37%	+0.14%	+0.52%	+1.36%	–1.63%

data on this page are as of market close Wednesday, Aug. 15, 1990 unless otherwise indicated. Aug. 14. Mutual fund returns are as of Aug. 10. Relative portfolios are valued as of Aug. 14. A more ustry groups include S&P 500 companies only; performance and share prices are as of market close detailed explanation of this page is available on request.

ALLIES: THIS IS YOUR CRISIS, TOO

The first post-cold-war international crisis has already shown the U. S. and its allies that the old relationships are history. The vagueness of the Europeans about how far they will go in providing men and money to respond to the seizure of Kuwait by Saddam Hussein vividly illustrates what many already suspected: With the Soviet Union no longer a threat, the terms of our relationship with Japan and our NATO partners are altered for good.

Following Europe's steps toward unity and the bewilderingly quick succession of events in U. S.-Soviet relations, NATO had already seen its role begin to change. What that role will be in the future is an open question, but the Saddam invasion and subsequent rise in oil prices inspire no confidence that the allies can respond to external threats in effective concert. For all the noise President Bush and Secretary of State Baker have been making about keeping NATO strong, it has been a cipher in a crisis that threatens the oil supply of all industrialized nations—Japan included.

President Bush says that he is confident that the cost of operations in the Middle East will be shared. Let's hope he's right, because the American people will demand that our affluent friends share the burden—if not in troops, then by defraying the enormous cost. The argument would run like this: Access to Arab oil is what this whole confrontation is about. Everyone knows that the Europeans and Japanese are much more dependent on Arab oil than the U. S., so what are we doing shouldering their burden? If they're not going to send troops, they ought to pick up a large part of the tab.

It is a fact that both Japan and Europe have as much to lose as we do from Saddam's oil shock. A U. S. trade official, speaking of Japan, says: "It's far closer to their gut than ours." This creates an opportunity to draw them into a defense of their own interests. Washington must deal with its allies with the same degree of mutual consultation that was so successful before and after all bilateral U. S.-Soviet talks. In dealing with Saddam, the embargo, troops, and the oil shock, it must always be made clear to the allies that it is as much their problem—if not more so—as ours. That is the way to draw them into a defense of their interests that coincides with ours. And it is the way to avoid the kind of carping that is inevitable if they don't pitch in.

HOW TO RUN AN AIRLINE INTO THE GROUND

The departure of Frank Lorenzo from Continental Airlines marks the end of an era. Lorenzo will be remembered in the economics textbooks for his leading role in airline deregulation. He was an outsider who shook up a staid oligopoly and brought air travel within the means of many more Americans. But Frank Lorenzo is a textbook case of how not to manage a company. That's why fo many, his exit is good riddance.

Lorenzo confronted the trade unions that represented h airlines, and in 1983, he broke their contracts with Contine tal by taking the airline into Chapter 11 reorganization. Th resulting uproar was so traumatic to his employees, th unions, and his customers that Congress ultimately passe legislation barring Chapter 11 as a negotiating ploy.

And the victorious Lorenzo did not stop there. He kep fighting the unions, particularly at Eastern Air Lines, whic Texas Air absorbed in 1986. This is no way to run an airlin More important, this is no way to run a company.

Recent corporate history is pockmarked with the crater of pitched battles between management and unions. Usuall these have resulted, in the long run, in disaster for th company. International Harvester became a shadow of it former self after its attempt to break its unions backfire Another grand old name in American business, Greyhoun is in Chapter 11 after a prolonged feud with its union Despite its low labor costs—almost half the industry ave age—Continental continues to teeter at the brink of disaste

Obviously, management and labor have legitimate diffe ences. But if management decides to break a union, it ca end up destroying not only the spirit of workers but th confidence of stockholders, customers, and bankers. That i the lesson Frank Lorenzo leaves behind him.

NO FOREIGN INVESTOR IS ABOVE THE LAW

It would be hard to imagine the U. S. allowing a foreig manufacturer to import goods that don't adhere to th nation's product-safety standards. But experts say th equivalent happens routinely on Wall Street, where foreig investors play by a different set of rules from domesti shareholders. By invoking foreign bank-secrecy laws, trad ers are able to ignore U. S. laws against insider trading an engage in other manipulations with impunity. Such act constitute theft from other investors.

A 1988 study by the General Accounting Office found tha overseas investors accounted for less than 20% of all dolla volume on the U. S. exchanges—but over 33% of all Securi ties & Exchange Commission investigations. Even when th SEC has an idea who's behind the trading, it is nearly impos sible to bring them to justice.

The answer: Require foreigners to agree to play by ou rules in our markets. One proposal would require oversea traders to agree to waive any secrecy protection that migh be invoked by a foreign financial institution. Such measure would spare the SEC from having to spend months—o years—laboriously sifting through Byzantine paper trails.

Critics contend such proposals create constitutional prob lems here and perhaps encroach on the sovereignty of for eign governments. But doing nothing allows foreign inves tors to effectively have their will with us. The SEC has ha admirable success at curbing illicit trading among Wal Street dealmakers during the past decade. Now, it's time t help them stop similar abuses coming from abroad.

1281